

American Aviation

The Independent Voice of American Aeronautics

JULY 15, 1946

Penalize the No-Shows

AT THE behest of the airline managements, the Air Traffic Conference is making detailed study of one of the toughest problems in airline traffic today—the passenger who holds a ticket for space and fails to show up for the plane. It is to be hoped that something concrete in the way of penalties comes out of the study.

The no-shows have been a costly toleration in the industry since the early days of the war.

As it stands now, anyone can purchase a ticket and collect full refund if he decides at the last moment to cancel his trip or to take

another carrier without notifying the carrier that has accommodated him. What this abuse of a courtesy system means in the way of empty seats and in added telephone and telegraphic charges is nothing short of shocking.

The public has abused its privilege to an extreme degree within the past few years. It is time the airlines shed their timidity about penalizing no-shows and place a penalty on refunds commensurate with the justice involved. The public has gotten by with murder, mayhem and other assorted crimes without the slightest retribution.

There are two systems in operation in other parts of the world which might serve as partial guides to the problem in the U. S., although admittedly the problem here is on a different scale.

In Australia and New Zealand a fare is refunded for a fee of about \$1.00 on notice of 12 hours or more. If the ticket is cancelled in from 6 to 12 hours the fare is refunded less 5%. If cancelled in from 2 to 6 hours, the refund is less 10%. If cancelled in from 1 to 2 hours, the refund is less 50%, and if the cancellation is in less than one hour of departure, or in the event of a no-show, there is no refund made at all.

In Europe, British European Airways, in pool with various other European carriers, has another system. If a ticket is surrendered up to within 24 hours of departure time, a refund of the fare is made less any telephone or telegraphic expenses incurred by the carrier. If the cancellation is made less than 24 hours before flight time, no refund is made unless the seat is re-sold. If the airplane is not fully booked, or if the seat is re-sold, the fare is refunded less any telephone or telegraphic expenses.

In almost every part of the world, no-shows or late cancellations are penalized up to the point of no refunds at all. While we believe there should be some leeway against complete elimination of refunds, we strongly

(Turn to page 6)



New TWA Communications Chief

Capt. Paul Goldsborough, USNR, former president of Aeronautical Radio Inc., and one of the leading airline communications men of the country, has been named director of communications for TWA. He served with the Navy for four years during the war in key communications assignments.

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The **PHANTOM** *— — —*
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Designed for carrier use, the FD1 Phantom's light wing-loading gives it a short turning radius unmatched by any

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By early 1947 the country's airlines will have received approximately 1700 Western Electric "ARC-ONE" transmitter-receivers. This set is the Navy AN/ARC-1 of wartime fame. It is the direct result of Bell Telephone Laboratories-Western Electric pioneering in VHF aviation communications which started back in 1937.

The VHF "ARC-ONE" is another example of Western Electric's ability to furnish outstanding equipments for a world on wings.



Western Electric

QUALITY COUNTS



American Aviation

Volume 10 Number 4

The Independent Voice of American Aeronautics

July 15, 1946



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International Aviation: A weekly newsletter of aviation trends and news in foreign countries. Published on Friday of each week and dispatched via first-class surface mail. Editorial representatives in foreign capitals. Subscriptions: \$100 one year (52 issues). Airmail delivery available at additional cost to cover postage. Service Bureau available to all subscribers. FRANK M. HOLZ, Managing Editor.

American Aviation Directory: Published twice a year, Spring and Fall. Complete reference data on administrative and operating personnel of airlines, aircraft and engine manufacturers, accessory and equipment manufacturers, organizations, schools, U. S. and foreign aviation groups and departments, etc. Completely cross-indexed by companies, activities, products and individuals. Single copy \$5.00. Spring-Summer 1946 issue now available. DAVID SHAW, Managing Editor.

American Aviation Traffic Guide: Monthly publication of airline schedules, rates and regulations for passenger and cargo transportation by commercial air transport. Supplements furnished subscribers covering changes occurring between issues. Subscriptions: U. S. and Latin America \$5.00 one year (12 issues and supplements); Canada \$5.50. All other countries \$6.50. Published and revised from editorial offices at 139 North Clark Street, Chicago 2, Illinois. (Telephone: State 2154). H. D. WHITNEY, Managing Editor.

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The Birdmen's Perch

By *Major Al Williams, ALIAS, "TATTERED WING TIPS,"*
Gulf Aviation Products Manager, Gulf Bldg., Pittsburgh 30, Pa.

Did we ever mention that we're fond of aviation?

And all its wonderful people?

Like the wonderful engineers who perfected the Navy's wonderful counter-rotating props. But discovered that the two propellers created a stroboscopic effect—a line traveling slowly in the opposite direction to the aft propeller, for instance—which made the oldest and most expert pilots dizzy, green, and disinterested.



And the wonderful gal (an honest-to-goodness female woman of the opposite sex!) who plunked down \$1250 and flew away a surplus P-38! Repeat: P-38!

And the wonderful laundry that picks up and delivers laundry and dry cleaning twice a week, *by plane!*

And the wonderful Baltimore pilot who put an automobile horn on his plane to summon airport attendants when he wants attention!

Yessir, we love every wonderful one of 'em!

We also love the wonderful Alchlor Process that makes Gulfpride the wonderful lubricant it is.

You probably know that we tack on this additional refining step after the oil has already been refined. Maybe because of that, you've wondered if it really made a great deal of difference in the long run... even though we've told you that the Alchlor Process *does* get extra carbon and sludge formers out of Gulfpride.

Well, sir, when we Alchlor-Process 10 quarts of the oil we've already refined by conventional methods—we take out a whole quart and a half of impurities, leaving only 8½ quarts of Gulfpride oil!

See why you get better lubrication with wonderful Gulfpride Oil?

SANI-SOIL-SET... PART 2

We were telling you last month about Gulf Sani-Soil-Set which makes dust lay like linoleum.

And we hadn't finished.

You know what a dirt port can be like with someone running up an engine and the wind blowing the wrong way, don't you?

Well, with Sani-Soil-Set on the ground, that doesn't happen! Water sprinkling is eliminated, cleaning and dusting inside buildings is minimized and so is frequent resurfacing of the field due to "blow away."

And a single application of this dust-laying agent often lasts a whole year. It doesn't evaporate. It doesn't wash away during rains.

Want some more information? Drop us a card.

LITTLE KNOWN FACTS DEPT.

Here's another month gone by with no Senior Grade Perch Pilot in The Little Known Facts About Well Known Planes Department.

Meanwhile, here are the new 'Perch

Pilots (bottom rung) and the "Facts" that won them their rank:

Stewart Hartshorn (P-97507), 250 Fifth Ave., N. Y. C., is now a Perch Pilot because:

"World War I bombers used shade rollers and shade cloth as 'bomb chamber' doors. They were operated by the pilot and designed to reduce wind resistance after bombs were dropped through the paper bomb bay covers!"

How about that?

And William Murphy, 184 Ferry Street, Malden 48, Mass., is now a Perch Pilot (br) because he discovered:



"It takes 5 minutes longer to fly from Boston to New York than it does to fly from New York to Boston, according to airline schedules. Reason: Prevailing winds!"

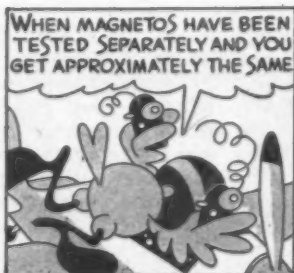
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Mail your "Fact" to the address above.

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"DROP IN R.P.M. IN EACH MAG —YOUR SPARKPLUGS ARE PROBABLY FOULED. FOR HEAVEN'S"



"SAKE GET 'EM CLEANED AND STOP WASTING THAT MAGNIFICENT HERO OF THE OCTANES"



GOOD GULF AVIATION GASOLINE!

Editorial

(Continued from page 1)

believe a penalty should be placed on all no-shows and all who cancel in less than, say, six hours before flight time.

One of the worst abuses of the reservations system during the war was by government secretaries and their officials in Washington, and among large corporations. Now the public has discovered how easy it is to be a no-show and collect full refund. How often reservations have been made on three or more different flights when the traveler wasn't quite sure when he wanted to leave. How many times have travelers failed to notify the airlines of change of plans. The record is staggering.

During the next few months, at least, airline telephone switchboards will continue to be inadequate to handle incoming calls. Passengers will have usable alibis that they are not able to contact the airline to cancel space. But this temporary situation will pass and we hope by autumn that the airlines place a responsibility upon their passengers to stick to their plans or give ample notice of changes—or take a penalty on refunds. The airlines have permitted themselves to be kicked around long enough by the unthinking public. The practice has been costly in both money and respect.

Show Case of Aviation

ONE OF the strongest proponents for non-aviation revenue for airports is Dudley Steele, former manager of Lockheed Air Terminal at Burbank, Calif., and now consultant to PCA for the operation of Willow Run Airport which the airline wants to develop as a model operation for the country.

Here are some quotes from a recent letter from Steele which speak for themselves:

"A healthy airport—financially—can grant lower rates to airline users as well as private and commercial operators for the use of the airport, while the contrary is true if it is constantly losing money.

"The airport is the show case of aviation. No one, your wife or mine, ever bought anything out of a dirty show case. Clean restrooms, clean windows, lawns that are clean and well kept, paint generously and frequently applied to all airport buildings, inside and out, will pay high dividends.

"If there are coffee shops, restaurants or cocktail lounges, let them be so located that the public can see the activities on the airport and not hidden in some dingy corner. Let those facilities be clean, neat and with excellent food and service. The combined facilities of coffee shop, Skyroom restaurant, two cocktail lounges and a news stand at Lockheed Air Terminal in 1944, did almost a million dollars gross business and netted a handsome profit. This is big business.

"There should be a public garage for airline patrons and airport employees for storage of their cars. Patrons like the convenience and proved it by supporting two such garages and a service station plus several parking lots at Lockheed Terminal. We did over 800,000 gallons of automotive gas, many thousands of gallons of oil and

thousands of dollars of automobile accessories business per year. Our gross in 1944 was over \$300,000, again with a substantial profit thereon.

"Why, if all these things can be done by private industry, can it not be tried, at least, by municipalities? It is believed that many airport managers all over the country have come to realize that the airport must control all of its revenue producing potentials.

"Airlines should be the most interested in such a program. The more revenue the airport receives and the closer it can approach the point where income equals or exceeds expenses, the more likely it is to listen to the petition of airlines and other flying interests to reduce its rates for the use of the airport. It is the airlines who bring the passengers to the airport. It is the airlines who are potential users of that airport's facilities. If the airport can be shown that the public will use all of the conveniences it offers, then it will provide them. This latter is a matter of education. Despite the fact that LaGuardia, Washington and Lockheed Air Terminal do make more than enough to cover their operating expenses (just to name three of a number), many airports have not taken advantage of the methods used to better their own positions."

Mr. Steele makes sense. Incidentally, Lockheed Air Terminal turned a profit of \$600,000 in eight years after paying \$1,270,000 federal and other taxes during that period. Unless airports are planned with vision to capitalize on their show case position in aviation, the operating users of airports face constantly increased costs. Tomorrow's airport must be much more than just a set of runways and a cramped terminal. It must be a community business center.

News Flashes and No Map

WE ARE WELL IMPRESSED by Washington National Airport's initiative and ingenuity in building up its non-aviation revenues. We aren't entirely sold on the advertising which now graces every pillar and wall space in the otherwise attractive terminal, but we have become reconciled to the news flash service recently installed to provide patrons with the latest spot news woven in between advertising for a well known whiskey. At least this advertising brings in revenue.

But what strikes us as a major defect in almost every airline terminal in the United States is the absence of a map of the national air transport system, or at least some indication of where airplanes fly from each particular airport. A few airlines now have small display maps of their own systems, but these, in our opinion, are not sufficient. Airlines should forget their rivalries at airport terminals and see to it that each terminal is equipped with a big up-to-date map informing visitors of the vast extent of services available. Washington National, which is indisputably one of the best operated airports of the nation, could well consider the map problem.

WAYNE W. PARRISH

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★ U. S. PAT. OFF. ★



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Product of many years' research and steady development, the Bell Helicopter is the first rotary-wing aircraft to receive an Approved Type Certificate from the CAA.

Bell is building helicopters for delivery late this summer. We believe ardently in the future of this unique rotor-craft. It offers a new and almost unlimited utility to government agencies, industry and agriculture.

Because it can take off vertically and fly low and slow, the Bell Helicopter unlocks the doors to hitherto inaccessible places. No landing strips or costly ground facilities are needed. A patented gyro stabilizing device assures inherent flight stability and offsets any tendency to tilt, pitch or sway. All the way is steady as you go.

To find out what this new kind of flight can mean to you in your business—write Helicopter Division, Bell Aircraft Corporation, P. O. Box 1, Buffalo 5, New York.



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Letters

To the Editor:

I read with interest your article entitled, "Battle of Sales Philosophy Shaping Up," but disagree on several points in connection with your interpretation and expression of American Airlines' plans.

First of all, you say "... C. R. Smith is introducing mass transportation methods into the business with an outright purpose of lowering fares and dispensing with luxury passenger service on high-density traffic routes." Lowering fares is American's goal, as it is the foremost desire of most all the larger carriers. Your statement is in direct contradiction of American's "Passenger Service Policy" by R. S. Damon, President, dated June 1946, which is enclosed.

Further on in your article you make contrary mention of "packing in the passengers," with American showing the way. This is not true. Some DC-3 trips by American between Boston-New York and Washington employ 28 passenger equipment. This is due to an over-demand for space on these highly populated runs. But, on the DC-4 runs American has standardized the service with nothing over 50 passenger equipment, while PCA uses 50 seats, Northeast 60, Eastern 56, Western with 54, C&S 50, National 46, Braniff 46, United 44, Northwest 44. (Figures from June 15th, American Aviation.) Where do these figures place American on the "crowding list"? It ties for fifth place with Chicago & Southern.

Please pardon the criticism; I do enjoy every page of *American Aviation*. I am also happy to have a minute part in today's aviation picture.

ROBERT DAILEY
Flushing, New York

(Editor's Note: American's new "Passenger Service Policy" which decries the use of the term "mass transportation" came to our attention after press time. But American is, in effect, striving for mass transportation and has yet to conjure up a substitute description or phrase. Far from being critical the article was intended to compliment American on "packing them in" on high-density routes. Perhaps the expression is unfortunate, because American has limited its DC-4s now to 50 seats, considerably under the seat capacity of PCA, Northeast and Eastern. The expression "packing them in" was intended to refer to fast handling of go-shows, filling all seats, high frequency of schedules.)

To the Editor:

Upon reading your front page editorial in the July 1 issue of "American Aviation," it has occurred to me that it might be wise to correct certain impressions as to Mr. Landis which were therein reflected. I take this trouble because I realize that the

audience of this publication is influential within the air transport industry.

Dean Landis is not new to aviation, nor is it new to him. He has been traveling by plane for over a decade, in which time he has accumulated many hundreds of hours of flying time. He has spoken of flying over 100,000 miles in a year without any ostentation. He knows many people in aviation, and a great deal about the practical workings and inner mechanisms of commercial aeronautics. The Dean is not without actual experience in the techniques of international air operations, having been actively engaged in the negotiations for Egyptian landing rights while he was Director of economic affairs for the United States in the Middle East during the recent war. He held this post with the rank of Ambassador, and has had extensive contact with the Department of State. He has been, I believe, influential in the rise of the air attaché system.

When he returned to resume the academic control of Harvard Law School early last year, he began preparations for a course devoted to research in the law of air transport. This seminar was presented during the summer of 1945, and was to have been offered again this summer. In it, he covered many phases of domestic and international flying.

Your fears that he may be bound by his legal background are legitimate but without basis. Mr. Landis is much more than a lawyer or a dean. He is a shrewd, loyal public servant with a genuine understanding of his fiduciary position. He is efficient and he is interested in the development of American aviation. The President could not have selected a better man. This will become increasingly clear to the industry in the years ahead.

WALTER H. WAGER
New York City

Books

THE AVIATION ANNUAL OF 1946. By Reginald M. Cleveland and Frederick P. Graham. Doubleday & Co., N. Y. 245 pp. Illustrated. \$4.00

Two well known men in the aviation field, both with The New York Times, have produced another annual review.

The book is studded with big names in aviation whose contributions on various topics provide an authoritative tone throughout.

Army Air Forces, Naval aviation, commercial air transport, aircraft manufacturing, private flying and airports, aeronautical research, aviation education and discussions of "the road ahead" are the main features, and Cleveland provides descriptions of new U. S. planes. It is well illustrated.

An annual aviation directory is included, most of which is up to date but the section on aviation organizations is regrettably quite antiquated.

Wings of Yesterday

15 Years Ago

Lieut. T. G. W. Settle and Lieut. Wilfred Bushnell won the National Balloon Race, having flown the Navy balloon 195 miles from Akron, Ohio. (July 19-20, 1931).

Eastern Air Transport, Inc. inaugurated air mail service between Washington, D. C. and Atlantic City, N. J. (July 20, 1931).

Hugh Herndon, Jr. and Clyde Pangburn flew from Floyd Bennett Field, Brooklyn, New York to Moylergrove, Wales, in 31 hours, 42 minutes, later continuing as far as Japan on a projected flight around the world. They flew a Bellanca Skyrocket equipped with a Pratt and Whitney Wasp motor. (July 23-29, 1931).

Parker Cramer and Oliver Paquette were lost between the Shetland Islands and Denmark on an attempted trans-Atlantic flight from Detroit, Michigan. They were flying a Bellanca Pacemaker seaplane equipped with a Packard Diesel motor. (July 27-Aug. 9, 1931).

25 Years Ago

The German Cruiser "Frankfurt" was sunk by Army and Navy bombers in fourth phase of aerial warfare demonstration. (July 18, 1921).

Conference on aerial law was held between the Secretary of Commerce and representatives of civilian aviation. (July 18, 1921).

The German dreadnaught "Ostfriesland" was sunk by Army bombers in fifth phase of aerial warfare demonstration (July 20-21, 1921).

Brig. Gen. William Mitchell led seventeen bombing planes in "raid" over New York. (July 29, 1921).

Obituary

Ralph E. Myers

Ralph E. Myers, the Salinas, Calif., fruit and vegetable grower who has been active in promoting shipments of perishables from California to eastern markets by air, was killed when his personal plane crashed enroute from Burlingame to his home. Myers, who was the largest grower of lettuce in the world, shipped thousands of pounds of fruits and vegetables in his airborne experiments and recently had been flying an average of a plane load a day to New York and other eastern points. He was just getting ready to start a 60,000 pounds a week service to Alaska at the time of his death.

Richard C. Hoy

Richard C. Hoy, 33, assistant chief engineer-research of Piper Aircraft Corp., was killed June 29 in the crash of an experimental plane into Bald Eagle Mountain, about seven miles east of Lock Haven, Pa.

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THE LOAD ADJUSTER

Your Easy Chair IN THE AIR

Giant Chicago and Southern DC-4 Dixieliners are styled first for your comfort . . . literally your easy chair in the air.



First in comfort, DC-4 Dixieliners also offer these notable *flying firsts* which mean so much to you in terms of swifter, smoother, far more pleasant travel:

First with the newer, faster, and far more powerful Wright-Rohr Cyclone 9-HD engines.

First with automatic propeller synchronizers that eliminate annoying "prop throb" in flight.

First with all electronic automatic pilot for smoother, "bee-line" flight.

Enjoy the new DC-4 Dixieliner service on your next trip North or South between the Great Lakes and the Gulf.

DC-4 Dixieliners serving Chicago, St. Louis, Detroit, Memphis, New Orleans, Houston.

CHICAGO and SOUTHERN AIR LINES

"the Route of the Dixieliners"



Ticket offices in all on-line cities. Reservations and tickets also available at authorized travel bureaus.



Want to be alone? Draw drapes make this a completely private compartment aloft.



Handsome lounge grouping amidships. Just the thing for your favorite foursome.



Freshen up in these bright, spacious lavatories, complete in every detail.

KIDDE ENGINEERED SYSTEMS

fire-protect *TODAY'S*
planes and anticipate
TOMORROW'S



HIGHER SPEEDS, larger engines—and more of them per plane. That means new problems in fire protection!

Kidde engineered extinguishing systems—planned for the plane—keep constantly in step with these new requirements. On many of the faster, larger planes that have already taken to the air, Kidde systems are helping to establish high standards of fire safety.

For revolutionary designs still on the drawing boards, Kidde engineers are prepared to develop equally effective, reliable extinguishing systems.

Aircraft manufacturers and transport companies are invited to discuss their fire protection problems with Kidde.

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Kidde seal are trade-marks of
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Background

(Significant Developments and Forecasts)

Airports Stymie Air Services: CAB sources indicate that the airlines responded quickly and with obvious good intent to the CAB "ultimatum" last May "that all certificated points receive service at the earliest possible moment." However, airport conditions still are responsible for a majority of suspensions of airline service. Since May the carriers have restored service to 12 points, but as of July 1 some 105 certificated points out of a total 523 authorized were still not receiving airline service—not including the numerous points recently awarded to feeder lines.

War Assets Delays: Procrastination by War Assets Corp. on release of excess airports is causing many a headache locally. Reading, Pa., is a good example. After the Army told Reading that the airport was no longer desired, it reneged and to date there has been no decision. Meanwhile TWA has made improvements costing \$70,000, and Reading Air Service has spent \$65,000. The TWA payroll is \$125,000 monthly. Still the Army is hedging on decision and War Assets Corp. not taking the action it is empowered to take.

Houston Terminal Project: A group of industrial firms (including Hughes Tool Co.) is considering building a real airport for Houston, Texas, and operating it as a private enterprise. If project goes through, it may be the first of many. It would serve the airlines.

AAAE Not A. F. of L. Controlled: Rumors that the American Association of Airport Executives has backing from American Federation of Labor are without foundation, although some informal discussions were held with A.F. of L. when C.I.O. started organizing airport employees in New England some time ago. But no tie-up was made or presently contemplated. The association finances itself through dues, although Pat Moore, its executive secretary, has chipped in to make up deficits. Moore is doing airport consulting work and has other business interests as well as doing a top-notch job of keeping AAAE active.

CAB Studies IATA Fares: Statistical analysts of the Civil Aeronautics Board have completed preliminary studies of the revised fare resolutions filed by the North Atlantic Traffic Conference of the International Air Transport Association (IATA). The new resolutions are believed to be in the Board's hands, but it is almost impossible to predict when CAB may take final action on the proposals. The Board may wish to give the revised fares extended study, which could, conceivably, include further analyses by its staff.

Douglas DC-6s Delayed: The Douglas Aircraft Co. has formally notified airlines which hold orders for the DC-6 that unavoidable production delays will result in later deliveries of the big transports than originally scheduled. Douglas advised the airlines that the series of nation-wide strikes last spring involving aluminum, steel and other purchased items caused unavoidable delays in processing these materials through production lines at Santa Monica. The company added that "by exercising priorities and using an elaborate system of cargo plane pickup and other special air transportation of critical items, Douglas was able to reduce the originally anticipated delay by many weeks." The No. 1 production model of the DC-6, which had been scheduled to fly in June, was taxied for the first time on July 2, with a consequent delay in the flight date.

Pan American Pushes Hotels: Pan American World Airways is undertaking a broad hotel promotion campaign for the Caribbean and South America. In some instances PAA is building the facilities itself. But more important, it is endeavoring to get the big hotel money to go into the business in such places as Rio, Buenos Aires, Bogota, Santiago and Lima. Lucius Boomer, of the Waldorf-Astoria, is involved in the plans. Hotel facilities in Latin America have been very inadequate to meet the increased demands. PAA's move is smartly designed to provide adequate facilities, which in turn will also draw new patrons by air.

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C. G. Grey Flies: C. G. Grey, the long-time cantankerous figure of British aviation who would rather remain wrong than to admit a factual inaccuracy, and who has never liked to fly very much, actually flew recently—in a Handley-Page Hermes. "It shocked the aeronautical world," was the comment one amused Britisher made.

Luke Harris' Record: Luther "Luke" Harris, who resigned recently as PCA's vice president-engineering and maintenance to become president of his own organization (now known as Luke Harris Industries Inc. instead of the originally-announced Aircraft Sales and Consultants Inc.) started in aviation 30 years ago, and 26 of those have been in scheduled air transportation, which may be the record for the industry. Harris started in 1920 flying the air mail on schedule for the Army and has been in the business ever since, except for the war and even that was in the same line. He has leased a hangar from PCA at Willow Run, Detroit, and will sell war surplus, including C-54 parts, as a government agent. He will also be an aircraft distributor, operate a repair shop and be a general consultant.

Critchley Heads Charter Service: Brig. Gen. A. C. Critchley, former director general of British Overseas Airways Corp., is now chairman of a new charter airline service in Britain called Skyways Ltd. With him in the venture is Sir Allan Cobham. Skyways has a contract to haul passengers and freight for the Anglo-Iranian Oil Co. and is competing quite lustily, for the time being, with BOAC. Another charter firm, Hunting Air Travel Ltd., is doing a big business hauling tourists to Switzerland and other points. But under the new air transport act, not yet effective, non-scheduled air services will be as rigidly restricted as they are in the U. S., and volume competition with recognized scheduled airlines won't be possible.

Go-Show Shipline Fares: Vernon Crudge, Atlantic regional director for BOAC, is advocating a special go-show shipside fare for students and others who are willing to take chances on getting seats on the Atlantic service. Fare would be about 75% of regular confirmed passage and tickets would be interchangeable among all lines. The idea is to fill up last-minute empty seats with a bargain ticket with appeal specially directed to students who aren't in a hurry and who are willing to take the gamble. Tickets wouldn't be sold until the last minute. Plan is advocated for future when load factors may drop below their present high levels.

The Iron Curtain: Soviet Russia hasn't been reciprocating on visas for Americans to visit that country. For every ten U. S. visas granted to Russians, only one Russian visa has been granted to an American. The run-arounds and delays have been terrific. Russians properly visaged get the run of our country, while in Russia the Americans are rigidly restricted. Look for some stiffening by the State Department (which has been notably negligent in handling Russian relations) in granting of further visas to Russians until the U.S.S.R. loosens up at its end. Tilt for tat.

Interchange on Atlantic: BOAC proposed recently to other trans-Atlantic operators that passenger tickets be interchangeable to meet emergencies when passengers of one line may be deplaned at an intermediate stop for technical reasons. Objective is to avoid passenger delays and make best use of equipment. BOAC feels rivalry for business stops at the point of inconvenience to passengers of individual lines. Even now one of the carriers is frequently unloading passengers at Gander or Shannon when weather makes heavier gas loads necessary. Result is beefing by passengers.

Smuggling Problem: One of the many headaches to face every country from now on is smuggling by air. Now that long-range flying is simple, the scope of potential smuggling activity is broadened considerably.

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11 Million Air Passengers Seen in 1946

Airlines to Fly 6 Billion Passenger-Miles; Traffic to Be at All-Time High in First Postwar Year

By LEONARD EISERER

AS THE DOMESTIC AIRLINES fly into the second half of this first postwar year, new passenger traffic records are assured for 1946 even beyond optimistic estimates of a few months ago. Looking back at the spectacular upward rises over prewar years, mass transportation by air would seem to be here, although the spiral is little more than well begun.

Traffic returns reported thus far indicate that the scheduled airlines should carry 10 or 11 million passengers approximately 6 billion revenue passenger miles this year, an astounding feat for an industry that a short decade ago flew less than one-tenth that many passengers and whose development was virtually frozen during nearly four years of wartime restrictions. For further perspective, the anticipated 1946 totals represent some 50% more than the number of air travelers served during the entire decade of the '30s, and twice as many revenue passenger miles.

Airline records since the end of the war leave no doubt that people want to travel by air, despite the reservation maze through which they must struggle, airport annoyances that have won a rather resigned acceptance, and a general, though not universal, decline in top-notch service en route.

While the high volume of passenger traffic is not totally unexpected, there

were few who anticipated such a general public acceptance of commercial air transportation so soon. Whether it will continue to develop and fill a profitable portion of seats in all the planes now on order—without first broadening the market through fare cuts—is the big X in the traffic equation. But to date load factors are holding up in highly satisfactory fashion.

The growth of airline passenger volume over the past 15 years, and particularly since the end of the war last August, is reflected in the accompanying table. Since last September, when 559,589 revenue passengers were flown 272,383,000 revenue passenger miles the trend has been steadily upwards reaching 937,154 revenue passengers and 461,702,000 rpm during April, the latest month for which complete figures are available. The April figures represented gains of more than 60% over September, despite the fact that September is normally a better traffic month because of seasonal factors. The April totals alone exceeded by comfortable margins traffic volumes for the entire year of 1936.

During the first four months of this year, the airlines have carried 63% more passengers and flown 71% more revenue passenger miles than during the comparable period of 1945, with only a fraction of their four-engine fleets in operation during that period. The 1946 four-month totals were 3,060,272 revenue passengers and 1,531,781,000 rpm compared with 1,872,441 and 894,233,000 a year ago.

How much the amazing airline traffic volume is confounding the experts may be realized from a glance back at prognostications made at the start of the year. The Civil Aeronautics Administration estimated total passenger miles at 5 billions for this year and 5.8 billions for 1947, compared with 3.5 for 1945. Barring a sharp reversal of the first half trend, the 1946 mark itself should soar near or past the 5.8 level, leaving 1947 for the unwary to predict. Next year, however, should see the 1935 Pullman mark of 7.1 billion revenue passenger miles seriously threatened, if not surpassed.

Revenue passenger load factors have inevitably slipped from the wartime high averages of 88% in 1943, 89% in 1944, and 87% in 1945, but not nearly so much nor as rapidly as expected. These factors for the first four months of 1946 have averaged 85%, despite a 73% increase in available seat miles since the end of the war.

Individual traffic leaders are American Airlines and United Air Lines which are running one-two in both revenue passengers carried and revenue passenger

miles flown. For the month of April, American reported 174,923 revenue passengers and 92,501,000 rpm, while United had 140,621 and 83,850,000. Eastern Air Lines with 115,147. PCA with 105,366, and TWA with 85,577 rounded out the first five in the revenue passenger category. However in revenue passenger miles, TWA with its generally longer hauls was third with 71,056,000, Eastern fourth with 58,297,000 and PCA fifth with 31,504,000.

Taken together these top five accounted for 66% of the industry's revenue passengers and 73% of the revenue passenger miles during April.

However, while these larger carriers dominated the picture through sheer volume, record gains this year over last reported all down the line among small, medium-sized, and big operators alike.

Thus, Northeast Airlines reported that its unofficial June passenger total of 48,010 represented an increase of 169% over the same month a year ago, and a 55% gain over May of this year, which itself had been a record month.

Mid-Continent Airlines flew 6,831,000 rpm last May, or 80% more than in May, 1945.

Northeast Airlines carried 53,909 revenue passengers 32,045,000 rpm, more than double its May, 1945, volumes.

United Air Lines reached its all-time high with 98,953,000 rpm in May, up 93% over the previous year and 18% over the previous month.

Chicago and Southern Air Lines' revenue passenger total of 227,835 in May represented a 106% increase over the same month of last year.

And so rises the traffic barometer throughout the industry. The boom is enormous by any measurement, and loaded with traffic problems for which there is little precedent.

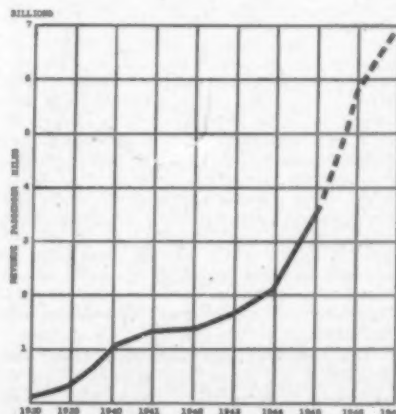
GROWTH OF AIRLINE PASSENGER TRAFFIC

	Revenue Passengers*	Revenue Passenger Miles
1930	329,943	73,092,000
1931	413,346	92,604,000
1932	417,366	110,523,000
1933	433,944	150,938,000
1934	406,334	163,437,000
1935	443,261	277,375,000
1936	711,140	388,242,000
1937	958,510	407,295,000
1938	1,176,858	476,402,000
1939	1,717,090	677,672,000
1940	2,727,820	1,045,100,000
1941	3,768,872	1,384,739,000
1942	3,349,134	1,398,042,000
1943	3,351,537	1,406,119,000
1944	4,575,952	2,229,571,000
1945	6,623,649	3,500,102,000

Monthly Traffic Since End of War

	Revenue Passengers	Revenue Passenger Miles
1945		
September	559,589	272,383,000
October	648,901	354,196,000
November	651,784	328,084,000
December	584,061	309,719,000
1946		
January	654,804	331,713,000
February	655,541	331,764,000
March	812,773	406,402,000
April	937,154	461,702,000

* Figures for 1942 and succeeding years are unduplicated totals. Prior to Jan. 1, 1942, each airline counted a passenger each time he traveled over a route in its system; hence, on some flights one passenger would be tallied two or three times.



\$425,000 Voted By ATA for Work On All-Weather Flying

Board Postpones Action on McGoldrick Terminal Report

BACKED by an allocation of approximately \$425,000 in organization funds, the Air Transport Association has definitely committed itself to finding the solution to one of its most vexing problems—all weather flying.

The board of directors of ATA last month voted \$307,350 for air navigation traffic control research and allocated another \$118,000 for experimental work on two projects involving approach lighting systems—one at Newark, the other at Chicago. The special new program designed to improve the dependability of flying through elimination of cancellations or delays caused by bad weather will be in close cooperation with the Army, the Navy and the Civil Aeronautics Administration. Some of these tests already are in progress at west coast military installations.

In its attempt to improve approach lighting systems, ATA, in cooperation with CAA, will make flight comparisons on three types of approach lights of high intensity. This is being done with the idea of determining whether a new type of lighting system will enable bringing planes in at lower ceilings during instrument weather flying conditions.

As further evidence of the airlines' determination to solve air traffic problems which are expected to develop with the rapid expansion of air travel, the ATA directors voted to make the former ATA Operations Committee into a full conference, which gives it increased power to act in behalf of the airlines on operations matters.

The board of directors received the report of Joseph D. McGoldrick, former comptroller of New York City, and his associates on airport terminal operations and costs. Action on the recommendations in this report will be taken at a later date to permit the Board members an opportunity to discuss the report with operation executives.

McGoldrick, based on his findings in a study of operations at five cities—Chicago, Peoria, Detroit, Denver and Memphis—recommended that the air carriers establish a joint company to operate all of the terminals in the interests of economy and efficiency. The report concluded that ground costs are excessive, with airport workers idle more than half the time. It was estimated that \$1,000,000 annually might be saved at the five airports surveyed under a joint operation plan, through improved operating methods, in the handling of passengers, mail, express and freight. Only airport ground costs, such as the servicing of aircraft and the handling of traffic at air terminals, were covered by the survey. Operation of city ticket offices was not included.

The survey group observed, "confusion bordering on chaos," at airports, lack of adequate waiting room space and dining facilities. The report said people gen-

erally blame the airlines for this condition rather than the city government.

It was recalled in airline circles that Dr. Lynn L. Bollinger, School of Business Administration, had made an almost identical recommendation at the National Aviation Clinic in Oklahoma City, Okla. last fall. At that time, one of the airline presidents voiced opposition to the plan.

Other actions taken by the Board included accepting into membership of ATA the following airline companies: Alaska Airlines, Pacific Northern Airlines; Caribbean Atlantic Airlines and Pan American Airways; approving creation of an Airline Engineering Committee which ultimately will become a conference; election of M. F. Redfern, secretary of the Air Traffic Conference of ATA as a vice president in charge of traffic; adoption of amendments to by-laws which define and broaden the powers of ATA officers and discussed the problem created by the "no-show" among airline passengers. In the case of the "no-shows," the Board let it be known that it expected the Air Traffic Conference to come up with the answers to this problem shortly.

'Queen's' Fare Boosted

It will be cheaper to fly across the Atlantic than it will be to ride on the British liner *Queen Elizabeth*. Sir Percy Bates, chairman of the Cunard White Star Line, said recently that when the liner sails on its first postwar passenger trip in September, the minimum rate for top-class passage will be about \$360 or "perhaps more." Present plane fare is \$375, but International Air Transport Association proposals now before the Civil Aeronautics Board would reduce this to \$325.

PO Starts Los Angeles Helicopter Experiment

The country's first helicopter air mail service is in progress in the Los Angeles metropolitan area where the Post Office Department last week opened its 30-day experiment for fact-finding purposes.

The Army is furnishing Sikorsky helicopters and crews for the project which is designed to give the P. O. data for presentation to the Civil Aeronautics Board at hearings on the establishment of regular helicopter routes. (AMERICAN AVIATION June 15). Postal officials are confident that results of the operation will prove the feasibility of speeding up air mail service in large urban areas without involving excessive costs.

Bikini Interview: Atom Bombs Sink Navy? Never, Snorts Stringbottom

Admiral Rufus P. Stringbottom, U.S.N., gave AMERICAN AVIATION an interview on the Bikini atom bomb test:

"Yes sir, son, the Nevada is still afloat. Proud as anything sittin' out there on that blue water. True to the Navy. Yep, the Army boys gave it all they had, but don't forget the main thing, the Nevada still sits out there as pretty a ship as ever sailed the seas.

"Sure 'nuf, son, this atom bomb has got a wallop all right and it stirs up a mess of smoke and they tell us it's a good thing to stay away from those radioactive thing-amububs, but I knew all the time that no atom bomb could wipe out the Navy. Leastways it wouldn't do no more than some bombs could do.

"And look at that goat. Hell, if that atom bomb was all they said it would be, why wasn't that goat blown to bits? There it was standing there peaceful as anything after that explosion and wasn't even singed.

"What you say about premature explosion? Well I tell you, son, that just goes to show that the Army always overestimates its abilities. If that bomb exploded three seconds too soon as they now claim it did, why that just goes to show that this bombing business isn't perfect by a long shot. Just between us, it's always been overrated.

"No, son, I never got to Hiroshima and Nagasaki, but those flimsy Jap towns are no match for anything. Now take these battleships of ours. They're built to stand up. Get damaged once in awhile, but

where would we have been in the Pacific without them? Son when you get right down to fightin' a real war you've got to have a Navy and there ain't much of anything that can happen to the Navy.

"That feller Mitchell was a trouble-maker from 'way back. Seems like all these flyers get too enthusiastic about what they can do. We had a lot of that stuff during this past war but you notice we had a Navy doing the job all the way through. What's that? Hell yes, we ran the fleet 'way up front. How do you think we licked the Japs? Sure we had airplanes, a man has got to have a little cover, but it was the fleet that scared the Japs.

"You say this atom bomb stuff makes a Navy unnecessary? Son, you're plumb out of your head. Don't believe all that air propaganda. The Navy has always been the front line of defense and always will be. Now when we get a half dozen more battleships we'll really have a fightin' force worth its salt. Thank God we torpedoed that merger business. A lot of young squirts trying to revolutionize things but they won't get anywhere. We've seen to that. The Navy bows to no one.

"Yes sir, son, the Nevada still is afloat in spite of the best atom bomb they could put down on her. That's the test, son. That's what counts—the Nevada still is afloat. They said there wouldn't be any Nevada. Son you can't sink the Navy with this air power stuff. We gave 'em a chance to prove it. The argument is ended. They can't sink the Nevada."

Truman Board Submits Pay Proposals For TWA Pilots

Recommended Pay Lower Than Interim Salary in Some Cases

THE President's Emergency Board, appointed to settle the dispute between TWA pilots and management over wages and working conditions on four-engined planes, recommended on July 8 a settlement which would result, in many cases, in the pilots receiving less pay on Douglas DC-4s and Lockheed Constellations than they now receive while flying the four-engined equipment on an interim pay basis. (See box on this page.) The recommendations are not necessarily binding on either group. Co-pilots were recommended for substantial increases.

In one of its major findings, the Board held that the formula of Decision 83 whereby air line wage rates are determined and which was later incorporated in the Civil Aeronautics Act, is an equitable method of computing pilots' pay, and should be extended to the higher brackets of speed above 200 miles an hour.

While it adhered to the general formula which involves a base pay, an hourly day and night rate and a graduated scale of from 1/2 to 1 1/2¢ per mile, the Board held that hourly pay brackets in the formula should be extended by 20¢ increments for each additional 25 miles flown per hour above the present top bracket of 200 miles or more per hour. Co-pilots won substantial increases by being recommended for mileage pay in addition to base pay.

One of the important features of the Board's recommendations is that the disputes in the cases of 11 other airlines—American Overseas, Braniff, C&S, Delta, Eastern, National, Northeast, Northwest, PCA, United and Western, shall be referred back to the Airlines Negotiating Committee as the representative of each of the carriers involved in these disputes and to the Air Line Pilots' Association as the representative of the pilots on each of the lines for negotiation of the desired changes in each of the separate contracts on the basis of the recommendations made for settlement in the TWA case. This was considered a victor for management. The Pilots sought to eliminate the Airlines Negotiating Committee from acting as the bargaining agent for all of the other airlines.

As a compromise, the Board said: "The Board has come to the conclusion that the proposal of the Carriers Committee to apply the existing schedule of the three pay components to the Skymasters and Constellations would inadequately compensate the pilots for their service and responsibilities on these faster and heavier planes, especially in international service. On the other hand, the Board finds that the increased rates and new schedules for each type of plane and for domestic and international service would both yield earnings far in excess of the pilots' work and responsibilities on the new planes, and would also change the fundamental purpose of the formula as originally established in 1934 in ways that are not justified either by the record before us or the experience of the 12 years under the original formula."

The Board said that while it could not hold with the Pilots' contention that there should be a new pay schedule for each new plane put in service, it did find that the mileage pay for the faster planes that fly more than 12,000 miles a month "needs to be revised upward to give this component of the formula a greater weight than it now has, and there is reason for a higher base rate in international service than in domestic service. With such adjustments as these, and some minor adjustments, the fundamental formula can be maintained, and made to provide the increased earnings the pilots are entitled to for the Skymasters and Constellations, without giving them an unreasonably large share in the gains from the improved equipment."

In the case of the dispute between American Airlines and its pilots, the Board recommended that this case be referred back to the parties (pilots and committee) on the basis of the recommendations made in the TWA case or in the alternative by resuming the mediation conferences that were broken off in New York on March 8, 1946.

Following is a summary of the conclusions and findings of the Board:

Rates of pay for domestic service—First pilots.

(A) The hourly pay brackets in the formula should be extended by 20 cents increments for each additional 25 miles flown per hour above the present top bracket of 200 miles or more per hour. Thus:

	Day flying per hour	Night flying per hour
200 mph up to but not including 225	\$5.00	\$7.50
225 mph up to but not including 250	5.20	7.80
250 mph up to but not including 275	5.40	8.10
275 mph up to but not including 300	5.60	8.40
etc.		

(B) The mileage rate for monthly mileages of 12,000 miles or more flown at speeds in excess of 100 mph shall be increased from 1¢ to 1 1/2¢ per mile.

Rates of pay for international service—First pilots.

(A) Base pay should be increased by \$750 a year in all classifications of first pilots. (B) The hourly pay should be the same as provided above for domestic service. (C) The mileage pay should be the same as provided above for domestic service.

Rates of pay for domestic service—Co-pilots.

(A) A mileage rate of 1/2¢ per mile should be added to the existing pay of co-pilots for all monthly mileages of 12,000 miles or more flown at speeds in excess of 100 mph.

Rates of pay for international service—Co-pilots.

(A) A composite hourly rate of \$1 per hour should be paid for day and night time flying. (B) The mileage rate should be 1¢ a mile for all monthly mileages of 12,000 miles or more flown at speeds in excess of 100 mph. (C) An additional \$25 a month should be paid co-pilots in international service who qualify as navigators.

Limitations and guarantees.

The requests of the pilots for limitations on monthly and yearly flying hours and mileage as well as guarantees of minimum monthly flying hours—Not granted.

Pilot Pay Analysis

An analysis of the recommendations made by the President's Emergency Board in the TWA 4-engined pilot wage case shows that a pilot with eight years of service, flying 85 hours a month, half day and half night, would receive \$10,982 yearly flying DC-4s domestically, and \$11,940 on Constellations. His present pay on a DC-3 would be \$9,477. On international routes, figures would be \$11,732 and \$12,599, respectively. The Air Line Pilots Association demands, domestically, were \$15,822 and \$19,141; internationally, \$17,053 and \$20,941. Under existing Pan American Airways contracts, DC-4 pilots receive \$12,720, Constellation pilots the same. American Overseas Airlines pays \$12,900 on both planes. AOA and PAA rates are on a monthly basis.

Rules for international service.

The Board recommends rules covering the following subjects:

(A) Payment of expenses while outside United States. (B) Moving expenses from domestic to international bases. (C) Reimbursement for any increased life insurance cost. (D) Workmen's compensation benefits. (E) Compensation while missing, interned or held as hostage. (F) Sick leave benefits. (G) Foreign base station allowances. (H) Annual vacations. (I) System-wide seniority. (J) Assignment to special foreign duty.

Emergency Board to Hear NWA Dispute

The commercial airlines' first nationwide strike came to at least a temporary close July 4 when heads of the independent International Association of Machinists ordered their 950 members back to work for Northwest Airlines, after receiving official notification of President Truman's order creating an emergency fact-finding board to investigate the wage and contract dispute. The strike had grounded NWA planes for more than 30 hours.

At issue are union demands for an 18 1/2¢ an hour wage increase and changes in working conditions.

Idlewild, La Guardia May Increase Charges

All airline and oil leases at Idlewild Airport and some at La Guardia Field appeared to be facing renegotiation for upward revisions, as both the city and New York Airport Authority indicated early this month that existing contracts would provide insufficient revenues.

Behind the move for renegotiation is the belief of city officials that the traffic will bear heavier rents and that a better revenue record must be provided if the Airport Authority is to float low-interest revenue bonds to complete construction at Idlewild and to operate that field along with La Guardia.

Cole Returns to CAA

Elwood Cole has returned to the CAA with the position of assistant to the administrator for state relations. He served as state coordinator for the CAA when employed there, before the war.

DC-4 Freighter Designed; Claims 4.9c Operating Cost

Plane Has 22,700-Lb. Cargo Capacity, 1,500-Mile Range

A NEW CARGO version of the DC-4, specifically designed and engineered for the economical transportation of air freight, has been developed by the Douglas Aircraft Company to meet the growing demand for an aircraft tailored to fulfill the requirements of this field of air transportation.

Called the DC-4-1037, the new Douglas transport will provide more range and more cargo space per horsepower and per dollar of operating cost than any airplane heretofore designed, the Douglas company claims.

With a cargo capacity of 22,700 pounds and a range of 1,500 miles, the DC-4-1037 will operate at the low cost of 4.9 cents per ton mile and fly at 240 miles per hour.

Douglas said the 4.9 cents per ton mile cost of the new plane is far below the operating cost of present cargo airplanes.

Cost of operation of the DC-3 or C-47 type airplane as a cargo carrier was 10.4 cents per ton mile with the takeoff gross weight of 25,200 pounds, the maximum payload allowed under CAA regulations until just recently. Two months ago, the CAA modified its regulation and allowed a maximum of 26,900 pounds takeoff gross

weight, which brought the cost per ton mile down to 8.2 cents.

Although the Douglas company made no comparisons with C-54's, operating costs on the C-54A have been computed as approximating 5.25 cents per ton mile at 20,000 pounds payload for a range of 500 miles. Operating cost of the C-54B has been computed at approximately the same figure at 20,000 pounds for a range of 1,500 miles.

The new DC-4-1037 thus raises the cargo capacity to 22,700 pounds and lowers the operating costs to 4.9 cents per ton mile with the range 1,500 miles.

Designed exclusively for cargo, the new Douglas transport has a five foot six inch by eight foot cargo door and a cargo capacity volume of 3,691 cubic feet. It has four auxiliary compartments for packaged freight.

Describing it as the first all-cargo airplane of its size, the Douglas company said the new DC-4-1037 would be manufactured at the company's Santa Monica plant simultaneously with the new 52-passenger DC-6.

Operating costs of the new plane were figured on the A.T.A. formula which takes in all costs except overhead. Items figured in the 4.9 cents per ton mile cost are fuel, oil, depreciation, overhaul and repair, ground service, crew salary and expense and insurance.

PAA Would Use British Jets

Juan Trippe, president of Pan American Airways, is reported by The Times of London as saying that PAA would not hesitate to order British jet-propelled transport aircraft if Great Britain succeeded in developing a suitable machine before American industry. Trippe is said to have made this statement during an airport interview while returning to the U. S. from an inspection flight on PAA's newest European services.

Eastern Air Show To Be Staged at Cleveland Airport In November

The Fisher bomber plant at Cleveland municipal airport, has been selected as the stage for the Aircraft Industries Association official eastern aircraft show, to be held Nov. 15-24. Leading national aviation organizations, in addition to the Army, Navy, Marines, CAA and NACA are reported to be cooperating and advising in the presentation of the industry's leading exhibition of the year.

Clyde Vandeburg, director of the eastern show, will have the cooperation of the National Aeronautic Association, Air Force Association, Air Power League, National Aviation Trades Association, Aviation Distributors and Manufacturers Association, Air Transport Association and the Aircraft Industries Association. In addition, approximately 500 exhibitors in all fields of aviation are expected to participate.

Upward of 40-thousand square feet of floor space will be available for the exhibit and the bomber plant has a minimum ceiling height of 45 feet and 300 foot doors for the convenience of exhibitors. Aircraft taxi strips and rail spurs connect directly with the building which also affords cafeteria accommodations for 4200 persons.

Shloss Joins Natl. Aircraft Shows

Leon W. Shloss, assistant editor of Popular Science Monthly and president of the Aviation Writers Association, has accepted the position of director of public relations for the National Aircraft Shows for the Aircraft Industries Association under Director Clyde Vandeburg. Shloss, a former public relations officer in the Navy's Bureau of Aeronautics, has resigned his job with Popular Science and the presidency of AWA. Gene Dawson, aviation editor of the Indianapolis News, becomes the new president of AWA. Eric Friedheim has resigned his editorial position with Air News to accept the position of assistant director under Shloss.

Landis Assigns Aides

Two new assistants have been selected by Civil Aeronautics Board Chairman James M. Landis to assist in the work of his office. Confidential assistant to the Chairman will be Mrs. Dorothy Brown. Stanley Gewirtz will serve as executive assistant to Mr. Landis, filling the post held at one time by James F. Reilly under former Chairman L. Welch Pogue. Miss Sylvia Bardelmeier will be Mr. Landis' personal secretary.



Latest in Airport Advertising

Providing new services to air travelers as well as revenue sources for the airport are the two flashing signs shown above, which have just been placed in operation at Washington National Airport. Advertising rights on the Trans-Lux ad-news sign across the top—stopped by the camera in process of flashing a statement by Chester Bowles during the OPA battle recently—have been purchased by Seagram Distillers Corp. The news sign which operates daily from 8 a. m. until midnight carries 20 words of Seagram's advertising every 3 1/2 minutes. The lower Benrus Watch Co. time-flash changes every minute and is in continuous operation. Both devices are operated by Airport Advertising, Inc., which holds the advertising concession at WNA, and turns over 10% of its gross to the airport—currently amounting to more than \$400 per month.

Lockheed Saturn Scheduled For Production in January

Feederliners To Be Turned Out At Rate of One A Day

LOCKHEED AIRCRAFT CORPORATION expects its new Saturn twin-engine regional transport to have wide acceptance on feeder lines in the United States, as well as in Europe, South and Central America, Australia and other foreign localities where air transportation is widely used but the volume of internal traffic does not require large ships, Robert E. Gross, president of Lockheed, declared in announcing successful flight testing of the new plane.

Piloted by Tony LeVier, chief engineering test pilot, and with Rudy Thoren, flight test engineer, aboard, the Saturn was taken to 10,000 feet on its first flight. The ship remained in the air an hour and was put through stall tests, single engine tests, tests with landing gear and flaps both up and down and performed in complete fulfillment of specifications.

The Saturn prototype is powered with 600 horsepower, nine-cylinder Continental engines, but 800 horsepower, seven-cylinder Wright Cyclones will be optional in the production models. The two-bladed, paddle-type propellers used, are made by the Aeroproducts division of General Motors.

The Saturn is designed to carry 14 passengers or 3,000 pounds of cargo or any intermediate combination of the two. A moveable bulkhead between the passenger and cargo compartments permits the division of passengers and cargo in the proportion desired on any given flight.

According to Lockheed, top speed of the craft is 250 miles an hour. With 60 per cent of power it cruises at more than 200 miles an hour at normal altitudes. At top gross of 16,000 pounds it climbs 1,325 feet a minute and with one engine inoperative can climb to 15,000 feet. It takes off in 1,500 feet. Maximum range is 2,000 miles, although it is designed primarily for efficiency on shorter, feeder-type flights.

The Saturn's appearance is distinguished by its high wing, providing unobstructed flight visibility for all passengers, its unusually high rudder and its low slung fuselage, reached from the ground by a step of only 34 inches. Wing span is 74 feet, overall length is 51 feet 6 inches and height is 19 feet 10 inches. Individual passenger seats, seven on each side of the aisle, are hammock-type chairs made of tubular steel and each seat is located directly beside a window.

Passengers may handle their own baggage, placing it in storage space provided in the main cabin, as they enter the plane via a small step which folds into the fuselage in flight.

The plane also has been designed for simplicity and economy of maintenance to appeal to small operators. The entire hinged nose section, for example, can be swung back as easily as opening a door, affording access to all controls and the instrument panel to a mechanic standing on the ground. Normal inspection does not require removal of any interior trim.

The main landing gear, landing gear door, power plant units, engine cowlings,

elevators and tabs, and wing flap assemblies are interchangeable from right to left or plane to plane, reducing the need for expensive inventories of spare parts and assemblies.

Lockheed's plant now is being tooled and assembly lines planned for a manufacturing program that is expected to produce one Saturn a day in 1947, Gross said. The first production model is due off the line in January, under this schedule.

Joins F.A.A. Staff

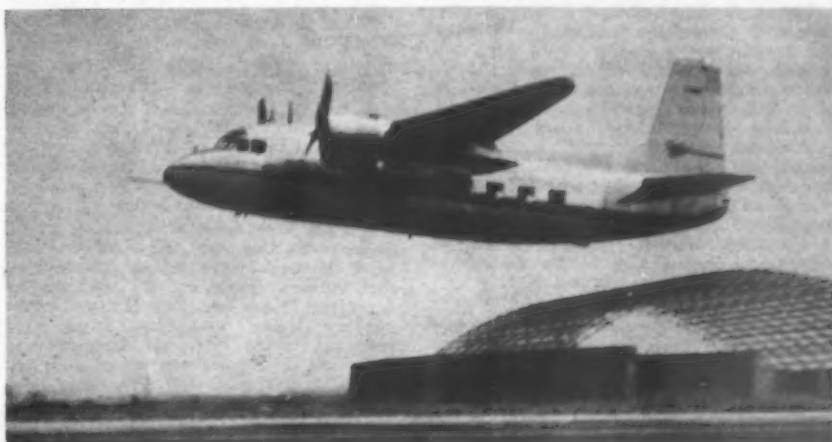
Doris Miller, formerly engaged in public information and press work with the CAB and American Airlines, in Washington, has been named assistant to Joseph J. Mitchener, Jr., executive director of the Feeder Airlines Association. Headquarters of the association are in the Denrike Bldg., 1010 Vermont Ave., N.W., Washington, D. C.

Schools Want Pay

Veterans Administration is lagging many months behind in payment to flight training schools for training given to G.I.'s under the Bill of Rights. The bulk of the schools engaging in the VA program haven't been paid a cent. Some of the VA bills date back to January. Delegations of operators have been calling on the government agency in Washington but the only excuse they get is the VA is swamped with work and hasn't enough personnel. Overdue accounts to local operators now probably total in the millions.

XB-35 Test-Flown

The Northrop XB-35 flying wing bomber, completed its first test flight without incident when flown leisurely from Hawthorne to Muroc, Calif., a distance of 85 miles in 45 minutes. Max Stanley, test pilot, reported that the plane handled and performed well on its maiden flight and, after the first two hour maneuver test hop at the dry lake, he declared the XB-35 was "100% perfect."



Saturn Test-Flown—

Top photo shows the Lockheed Saturn, regional transport, as it took off on its first test flight in California. The flight is reported by company officials to have been performed in complete fulfillment of specifications. Lower picture shows how passengers will load carrying their own baggage. The baggage is placed in storage space provided in the main cabin.

Rail-Dominated ICC Plays Big Part in Lea Study

Will Handle Questionnaires In Transport Investigation

By GERARD B. DOBBEN

IT appears that the airline industry will go into the forthcoming Congressional investigation of transportation with two strikes on it.

While Rep. Clarence F. Lea (D., Calif.) chairman of the House Interstate and Foreign Commerce committee was preparing to announce the appointment of a director who will conduct the study authorized by Congress, more information has come to light as to the extent that the railroads will continue to figure in an investigation which may result in the establishment of one regulatory agency for all forms of transportation, including aviation.

Employees of the railroad-dominated Interstate Commerce Commission will do the actual mechanics of sorting and digesting the material which has come to the committee in the form of answers to a topical questionnaire which was prepared for the committee by the Transport Association of America—an organization which the Senate Interstate Commerce committee has described as a "railroad front." They also will make studies independent of facts brought in the answers to the questionnaires. This will be largely from data in the files of the Interstate Commerce Commission.

Rep. Lea told AMERICAN AVIATION that the House Interstate and Commerce committee would keep control over the investigation through the specially appointed director. He said the field of prospective appointees had been narrowed to three. Two of the three are college professors of transportation. Rep. Lea said the information would be assembled on a factual basis and placed in such form as to make it easy for the committee to study it.

The extent to which railroad interests have dominated the preliminary phases of this investigation causes a considerable degree of apprehension in aviation circles as to the future course of the study. Rep. Lea admitted to AMERICAN AVIATION that the investigation came about as a suggestion of former Congressman Sydney Anderson, of Minneapolis, president of the Transportation Association of America. Anderson is said to have expressed to Lea the need for a comprehensive study to re-evaluate transportation policy in the light of a possible need for new legislation. When Lea tacitly agreed, Anderson is said to have told Lea that he had the man who would do the preliminary spadework for the committee.

This man was Edward Moree, vice president of TAA, who soon afterward contacted Lea. Lea then called an executive meeting of the House Interstate and Foreign Commerce committee and Moree was the only outsider to appear before the committee. It was as a result of agreements reached in this secret meeting that Rep. Lea introduced the resolution in Congress calling for a broad study of postwar transportation policy.

A short time later, there was sent out, under committee frank, a topical questionnaire to the thousands of members of the various transport organizations of America. It has been charged, and never publicly denied, that these forms were prepared by the Transport Association of America. The questions asked followed the general theme that TAA has been following for many months—that of a need for greater coordination of transport services. One member of the committee has gone so far as to state that he is certain that TAA has had an opportunity to study the more than 400 answers that have been received to the questionnaire.

Seabee Price Increased

The price of Republic Aviation Corporation's four-passenger Seabee amphibian was increased last week from \$3,995 to \$4,495. The Seabee was certificated for commercial production by the Civil Aeronautics Administration on July 1, and the company said deliveries to dealers and distributors would begin immediately.

CAB Asks Congress For Power to Fix International Fares

The Civil Aeronautics Board has filed again with Congress a request that legislation be passed giving the Board the power to fix rates, fares and charges in international air transportation.

CAB has sent to the House Interstate and Foreign Commerce and the Senate Commerce committees drafts of a bill which would amend the Civil Aeronautics Act of 1938 so as to include all air transportation within its rate fixing powers. Under the present phraseology of the Act, the Board's rate fixing power is limited to "interstate and overseas" air transportation. Under existing law, the Board holds a limited and rather negative power over rates charged by international carriers. It can disapprove rates if they are found to be discriminatory.

In letters accompanying the draft of the bill, the CAB noted that the recent Bermuda Civil Air Agreement signed with Great Britain provides that the Board shall seek legislation enabling it to fix rates covering the operation of U. S. airlines in the international field. The Board points out that a similar provision was included in the recent air agreements signed between this country and France and Belgium.

Due to the lateness of the session, there appeared little likelihood that Congress would act on this legislation during the present session.

Howard Hughes Critically Injured in XF-11 Accident

Howard Hughes, president of Hughes Tool Co., was in critical condition as this issue went to press following the crash near the Los Angeles Country Club on July 7 of his new XF-11 long-range photographic plane (see photo) which he had taken aloft on its first test flight. He was given a 50-50 chance of recovering.

Hughes, whose company owns close to 50% of TWA's stock, and who is well known in aviation circles as manufacturer of the large HK-1 Hercules flying boat, attempted an emergency landing on the Los Angeles Country Club golf course after the twin-engine plane's landing gear jammed. A spectator also reported that one motor had quit. Missing the golf course by a quarter of a mile, the plane struck a \$100,000 home, which burned with the plane.

The XF-11 was built by Hughes in conjunction with Air Materiel Command engineers. It is powered by two Pratt & Whitney R-4360 Wasp Major engines, has eight-bladed contra-rotating propellers.



Hughes' New Plane—The new XF-11 long-range photographic plane in which Howard Hughes crashed after taking it aloft on its first flight, is shown above. Built by Hughes in conjunction with Air Materiel Command engineers, the plane is said to have a speed of more than 400 mph and a ceiling of more than 40,000 ft. XF-11 has a pressurized cabin, carries a crew of two.

CAB Splits, But UAL Gets San Francisco-Hawaii Line

Can't Agree on LA-Hawaii Operator; Reopens Case

UNITED AIR LINES will soon be flying across 2,400 miles of the Pacific Ocean between San Francisco and Hawaii as a result of the Civil Aeronautics Board's decision in the Hawaiian Case last fortnight. With the approval of President Harry S. Truman, United was selected to compete with Pan American Airways' San Francisco-Honolulu service by a CAB majority which included former Chairman L. Welch Pogue, vice chairman Oswald Ryan, and Member Harlee Branch.

Possibly the most unusual feature of the decision, was the curious two-to-two split which prevented the Board from achieving the majority vote required to certificate a carrier for the Los Angeles-Honolulu route which was also up for decision. Both Pogue and Branch were strongly in favor of giving the southern leg to United, but Vice Chairman Ryan and Member Josh Lee wrote separate opinions urging that Hawaiian Airlines, the only native territorial carrier, be brought to the West Coast.

As a possible means of resolving this dilemma, the Board issued a separate but simultaneous order reopening the case for reargument and reconsideration. Observers believed that this move would permit the new Board Chairman James M. Landis, and Member Clarence M. Young to participate in the final decision on the case. Both had been disqualified from voting on last week's opinion because they had not been members of the Board when the case was argued orally. It is now considered likely that the deadlock will be broken when a full five-man Board reaches a final decision.

The majority opinion concluded that the public convenience and necessity required an additional service to compete with PAA between the West Coast and Hawaii and selected United as the applicant best fitted to operate the route and to provide strong competition for Pan American.

On the question of permitting United to serve Los Angeles as a co-terminal with San Francisco (PAA serves both points on its Hawaiian route) the Board divided, with Pogue and Branch dissenting strongly in favor of allowing UAL to operate from both points. They agreed that traffic potentials indicated that the route could easily bear one competitive carrier in addition to Pan American, but contended that a third operator was not justified at the present time. In their separate opinion, they proclaimed themselves unable to see any "logical justification for refusing to permit that one additional air carrier (UAL) to render the best possible service and the most effective competition for the benefit of all the local Hawaiian-Mainland traffic," pointing out that limiting United to the San Francisco route alone would impede it from competing for the large volume of business which has moved through Los Angeles to the Islands in the past.

Vice Chairman Ryan filed a separate opinion stating that he believed sufficient U. S.-Hawaii traffic existed to warrant the installation of a third carrier to operate between Los Angeles and Hawaii. He selected Hawaiian Airlines as the logical operator of this service, which could, he declared, be smoothly integrated with its inter-island operations on its Hawaiian route. Ryan opposed the extension of United from Los Angeles to Hawaii, maintaining this link did not represent a logical extension of UAL's domestic system as did the route from San Francisco.

The third and longest concurring and dissenting opinion was presented by Member Josh Lee, who agreed that UAL should be certificated between San Francisco and Hawaii but said he did not believe United should likewise receive the Los Angeles-Honolulu route. "I am not persuaded," Lee wrote, "that the certification of United alone for both routes will provide 'competition to the extent necessary.'" He proposed that UAL's Route 1 be extended from San Francisco to Hawaii and that Hawaiian Airlines be authorized to operate to the mainland.

Failing a majority, Hawaiian Airlines' application was denied, as were also those of Northwest Airlines, the Matson Navigation Company, Western Air Lines and the Ryan School of Aeronautics. The order reopening the case specifically limited reconsideration to the existing record and precluded offering any additional evidence.

In rejecting the application of Matson, the most powerful shipping company operating between the U. S. and Hawaii and one of the most vociferous of the surface carriers who want to break into air transport, the Board said that Matson's dominant position in surface carriage, coupled with its extensive connections in the Islands, would give it an "undesirable competitive advantage" over Pan American should the Board authorize it to operate an air service.

The date for reargument in the case has not yet been selected.

Parks Officials on Tour

Three department heads from Parks Air College are touring Eastern aircraft plants, airlines and airports studying employment opportunities in the aviation industry and collecting material for incorporation in future courses in maintenance, operations and aeronautical engineering at the college. The department heads are Gene Kropf of airlines operations, John J. Glynn of business administration and Edward H. Barker of the pure and applied sciences department. Cities they will visit include Chicago, Indianapolis, New York, Schenectady, Baltimore, Washington, Buffalo, Allentown-Bethlehem, Pa., and Stratford, Conn.

Cohen Joins IATA

S. Ralph Cohen, former editor of the *National Aeronautics Magazine*, has resigned from NAA to accept the position of Public Relations Officer of the International Air Transport Association in Montreal. Cohen took over his new duties this week.

Adm. Land, 6 Airline Management Officials Named to Arinc Board

Adm. Emory S. Land, president of the Air Transport Association, and six airline management officials have been elected to the board of directors of Aeronautical Radio Inc., non-profit organization owned by the airlines, to achieve a better balance on the board between management and technical divisions of the airlines, and to better equip Arinc to make the important decisions facing it in connection with all-weather flying and other problems.

This marks the first time that the president of ATA has been on the Arinc board, and Adm. Land's election will insure close cooperation between ATA and Arinc on policy matters. Adm. Land will also serve as chairman of Arinc's expanded executive committee.

The new Arinc board is composed of Adm. Land; D. W. Rentzel, Arinc president; Paul Richter, executive vice president of TWA; J. H. Carmichael, executive vice president of PCA; J. G. Flynn, vice president-operations, American Overseas Airlines; Charles N. James, vice president-operations, Western Air Lines; Ray Shrader, vice president, Braniff Airways; K. R. Ferguson, vice president-engineering and planning, Northwest Airlines; J. R. Cunningham, director of communications, United Air Lines; Don C. McRae, superintendent of communications, Eastern Air Lines; F. C. Barker, superintendent of communications, Northeast Airlines; L. T. Campbell, superintendent of communications, Delta Air Lines; G. E. Mears, director of communications, American Airlines; W. D. Inness, director of communications, National Airlines, and P. B. Wadlington, superintendent of communications Chicago & Southern Air Lines.

The new board members are Adm. Land, Richter, Carmichael, Flynn, James, Shrader and Ferguson, the others having served previously. Expansion of the board was from 11 to 15 members. Three former members resigned in favor of their company management officials.

The Arinc executive committee, which is empowered to act on behalf of the board in the periods between board meetings, consist of Adm. Land, Carmichael, Cunningham, McRae and Campbell. Rentzel serves as an ex officio member. The executive committee formerly consisted of three members.

T. B. Wilson Enters Primary For Kansas Legislature

T. B. Wilson, chairman of the board of TWA and head of the company's international system, has filed formal notice to enter the Republican primary for the Kansas state legislature. He maintains a home at Williamstown, Kansas, near Kansas City, and his district is Jefferson County.

If successful in the primary and election this year, it is reported that Wilson may run for the U. S. Senate. The term of Sen. Arthur Capper, Republican, now 81 years old, ends in 1948. Kansas' other Senator, Clyde M. Reed (Rep.), serves until 1951.

12 Domestic Airlines File Joint Air Freight Agreement

Carriers Aim to Make Service More Convenient for Shipper

The first concerted move of the scheduled airlines in the air freight field was officially made last month when a joint agreement involving 12 carriers was filed with the Civil Aeronautics Board.

The long-awaited agreement, which would govern the publication of consolidated air freight tariffs, cites the need for interline arrangements and equitable joint rates to provide adequate scheduled air freight service. It also stresses the belief that elimination of unnecessary variances in the classifications, rules, and practices would contribute substantially to the efficiency, utility, and convenience of air freight service.

Parties to the agreement, in addition to Pennsylvania-Central Airlines which technically filed it with CAB, are American Airlines, Braniff Airways, Chicago and Southern Air Lines, Continental Air Lines, Eastern Air Lines, Inland Air Lines, Mid-Continent Airlines, National Airlines, United Air Lines, Western Air Lines, and Transcontinental & Western Air.

Only operating domestic airlines not participating are Colonial Airlines, Delta Air Lines, Pioneer Air Lines, Northeast Airlines, and Northwest Airlines. The first four have not yet begun air freight operations, while the latter's special agreement with Railway Express Agency is heading for investigation by the CAB.

Under the agreement it is proposed to publish and maintain consolidated tariffs, with each participant, however, reserving the right to determine its own regulations and rates for its routes. Actually, at the moment there is a striking similarity among the rates in effect for the various carriers, all of the existing general tariffs being patterned after the single-class commodity structure placed in effect by United on Feb. 1 with a basic airport-to-airport rate of 26½¢ per ton mile.

Early approval of the pact by CAB is expected, since it was laid in the mold set by the agreement of ATA's Air Traffic Conference governing consolidated passenger tariffs now in effect. The sole feature that may in any way be considered restrictive is one providing that a carrier shall notify the agent on the Air Traffic Conference staff of any new tariff or revision at least 15 days before it is filed with CAB. The agent in turn is responsible for informing all other parties of the proposed revision. To the extent "feasible," the parties agree to discuss with one another contemplated changes in the rates, charges, classifications, rules, practices, and services involving air freight, so that other parties affected may thereby be fully advised in advance.

Work on the consolidated tariffs will proceed after formal approval of the policy-making agreement by CAB which would relieve the carriers from possible operation of federal anti-trust laws. Sizeable savings should accrue to the carriers through joint publication of freight rates and elimination of duplicating traffic expenses.

Repair Base Item and Airport Fund Included In CAA's \$122 Million

Record appropriations for fiscal 1947 amounting to \$121,911,720 were voted for the Civil Aeronautics Administration early in July when the House and Senate adopted a conference report which provides, among other items, \$47,975,000 for the commencement of the Federal Aid airport program during the year, beginning July 1, 1946.

CAA's 1946 appropriation, according to House Appropriation committee figures, was \$56,236,000. Thus the increase for 1947 amounts to \$65,675,720 the greater part of which is due to the \$48,000,000 appropriation for airport development and construction.

The bill contains an item for maintenance and operation of aircraft amounting to \$1,593,000, which in addition authorizes CAA to maintain and operate 231 aircraft, including a repair base at Rogers Field, Oklahoma City, Okla. The repair base phase of this item was opposed by fixed base operators, represented by the Aeronautical Training Society and the National Aviation Trades Association. The House bill authorized CAA to make use of some \$5,000,000 worth of surplus aircraft parts but limited the amount of CAA employee pay which might be expended in the repair of a single aircraft to \$100. The Senate changed the limitation to purchase of parts only. The conference committee report, which was adopted, raised the limitation to \$200 which is to include both labor and material costs.

While the conference committee report reduced the Senate-passed item for airport planning and construction from \$55,000,000 to \$47,975,000, debate on the House floor brought out that this sum could be augmented during 1947 through action of an Appropriations Deficiency committee if applications for grants, approved by the CAA Administrator, exceeded the \$45,000,000 allocated for airport construction. The balance of the item—\$2,975,000—is to be used for preliminary planning and surveys.

The conference report reduced the Senate-passed bill by \$8,340,000. Principal items in the CAA appropriation measure, as finally adopted, are as follows: General Administration, Office of Administrator, \$4,353,102; establishment of air navigation facilities, \$19,622,200; maintenance and operation of air navigation facilities, \$39,418,418 including \$2,874,000 for operating these facilities on American built air bases abroad under terms of a Presidential order; technical development, \$875,000; enforcement of safety regulations, \$7,075,000; airport advisory service, \$250,000; maintenance and operation of aircraft, \$1,593,000; maintenance and operation of Washington National Airport, \$750,000; preliminary airport planning and surveys, \$2,975,000 and matching funds, National Airport program, \$45,000,000.

Aviation Calendar

July 12-Aug. 11—Aviation show in connection with Centurama Celebration, Milwaukee.

July 18-21—World's Fair of Aviation, Omaha.

July 18-19—IAS National Annual Summer Meeting, Royce Hall, University of California at Los Angeles.

July 19—Organization meeting Flying Farmers of Minnesota, U. of M., St. Paul.

July 17-19—NAA National Convention, Omaha, Neb.

July 26-31—Mansfield, O., Municipal Airport dedication and "Sky Show."

July 26-27—NAA Joint Private Flying Conference, Milwaukee.

July 29-30—NAA Joint Air Youth Training Conference, Milwaukee.

July 30—IATA European-South American route conference, Paris.

Aug. 1-3—National Flying Farmers' Association first annual convention, Oklahoma A & M College, Stillwater, Okla.

Aug. 2-4—Observance of 20th anniversary of air passenger service, Grand Rapids, Mich.

Aug. 3-18—National soaring contest, auspices National Soaring Society, Elmira, N. Y.

Aug. 21-23—World Congress on Air Age Education sponsored by Air Age Education Research, International House, New York.

Aug. 22-24—SAE National West Coast Transportation & Maintenance Meeting, New Washington Hotel, Seattle.

Aug. 24-25—Denver International Air Show, Denver, Colo.

Aug. 30-Sept. 7—International Air Show, de Havilland Airport, Toronto, auspices National Aeronautical Association of Canada, 409 Confederation Life Bldg., Toronto.

Aug. 30-Sept. 2—National Air Races, Cleveland, O.

Sept. 10-13—Federation Aeronautique Internationale General Conference, London.

Sept. 17—IATA Western Traffic Conference, Rio de Janeiro.

Oct. 3-5—SAE National Aeronautics (Fall) Meeting and Aircraft Engineering Display, Biltmore Hotel, Los Angeles.

Oct. 4-13—Annual Air Show sponsored by Aircraft Industries Association, Cleveland.

Oct. 14-17—National Aviation Clinic, Oklahoma City.

Oct. 16-17—SAE National Transportation & Maintenance Meeting, Hotel Knickerbocker, Chicago.

Oct. 23-25—Second Annual Arizona Aviation Conference, Phoenix.

Oct. 24—IAS National Air Transport meeting, Statler Hotel, Washington.

Oct. 29—Annual meeting International Air Transport Association, Cairo.

Nov. 7-8—SAE National Fuels & Lubricants Meeting, Mayo Hotel, Tulsa, Oklahoma.

Nov. 15-24—Eastern Annual Air Show, Sponsored by Aircraft Industries Association, Cleveland.

Dec. 2-4—SAE National Air Transport Engineering Meeting, Edgewater Beach Hotel, Chicago.

Dec. 12-15—International Aviation Celebration, El Paso, Tex., auspices Chamber of Commerce.

Dec. 17—Tenth Wright Brothers lecture, New York, auspices IAS.

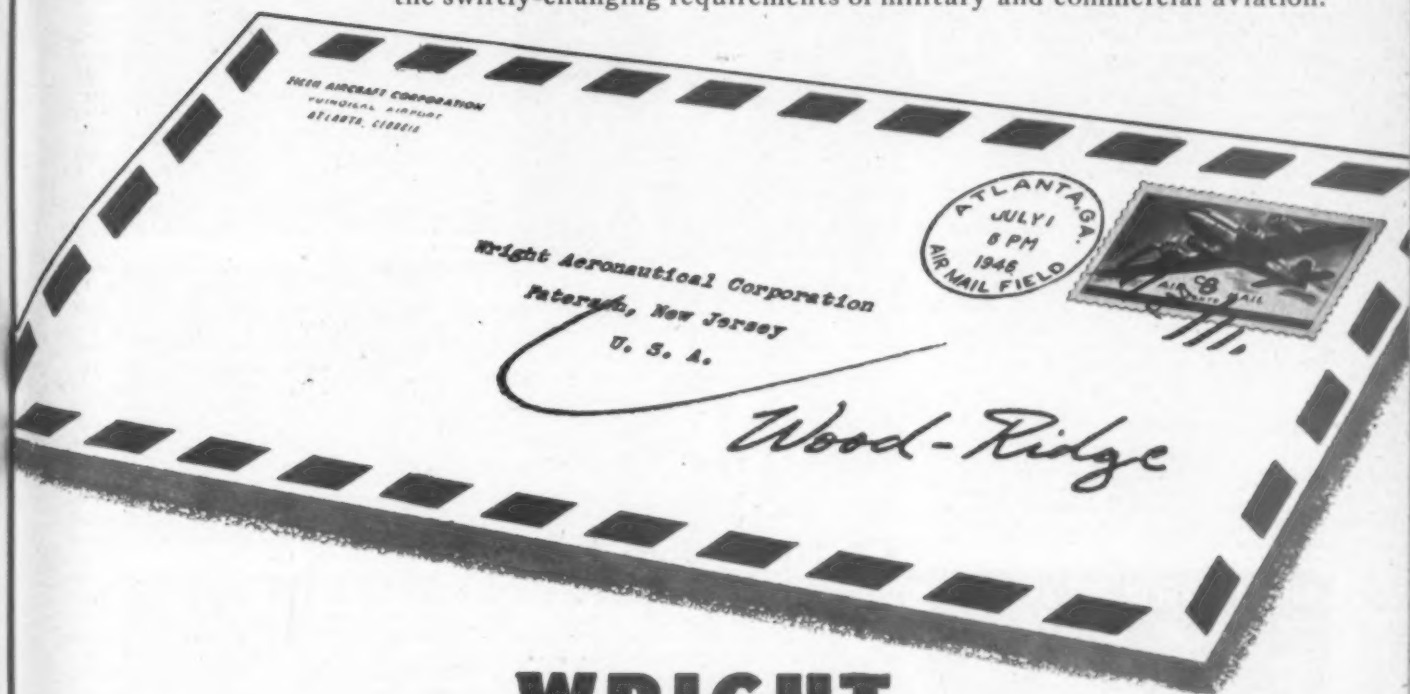
Jan. 10-11, 1947—15th Annual All-American Air Maneuvers, Miami.

Jan. 11-16, 1947—Aviation of Tomorrow Exhibit, Miami.

Jan. 28-30, 1947—Fifteenth annual meeting, IAS, New York.

April 1947—Western Air Show, Los Angeles.

After 26 Years . . . Wright Aeronautical Corporation is transferring all of its operations to its new, modern plant at Wood-Ridge, N. J., after more than a quarter-century in Paterson, during which the city became the world center of aircraft engine development. Complete, compact, yet larger than the old plant, the Wood-Ridge factory will combine every modern feature for production and advanced research. This move will further contribute new power for the swiftly-changing requirements of military and commercial aviation.



WRIGHT
AERONAUTICAL CORPORATION
WOOD-RIDGE N. J.



POWER FOR AIR PROGRESS

AA Stresses Passenger 'Service', Discards Use of 'Mass' Travel

American Airlines has discarded references to "mass" and "volume" transportation, according to a passenger service policy folder issued to employees under the name of Ralph Damon, president.

"Some have been careless in defining our present and future responsibility as 'mass' or 'volume' transportation," the folder said. "When we think of 'mass' or 'volume' transportation we think of streetcars, subways and buses. We are not, and will not be, in that business."

"One of the principal reasons for the success of air transportation has been the desire and willingness of the people in air transportation to accord the passenger the dignity of an individual."

"On the other hand, our success in attracting patrons from other forms of transportation, and to air transportation, has been the willingness of other forms of transportation to regard their passengers as a 'mass' or 'volume' of people."

"American Airlines is a public service institution. Its success is founded upon the dependable, lasting basis of service thinking, and the excellent service which that thinking creates."

Legal Appointment

Hardy K. Maclay has been appointed assistant general counsel, finance-legal division, of the Civil Aeronautics Board, a position vacated with the recent promotion of Emory T. Nunneley, Jr., to the post of general counsel.



TACA Traffic Assistant—Nelson B. Fry, who served as President of the Air Traffic Conference of America in 1945 and who has been prominently identified with United Air Lines where he served last as system traffic manager, has been appointed assistant director of traffic for TACA airways system.

Hughes Sues Perelle For 'Neglect' of Duty On Flying Boat Job

The Hughes Tool Co., headed by Howard Hughes, filed suit in Houston on June 28 for a declaratory judgment and assessment of damages against C. W. Perelle, former vice president of the company and general manager of its aircraft department. Perelle is now president of Gar Wood Industries Inc.

The suit alleges that Perelle failed to fulfill certain obligations in the supervision of the company's government contract covering the large Hughes cargo flying boat as well as bi-motored Army reconnaissance planes.

"Within a short while after undertaking his duties as an officer and employee . . . Perelle commenced and thereafter continued to follow a course of conduct which amounted to gross and wilful neglect of his duties . . . and which amounted also to wilful violations of the rules of this company," the complaint states.

Perelle, it adds, was employed by Hughes Tool Co. in September, 1944, but was discharged in December, 1945 for "insubordination and failure to perform the duties assigned to him." Before his employment, Perelle is alleged to have represented himself as "a man of outstanding and unusual ability as an organizer of production and manufacturing efforts," but that after employment he not only failed to expedite production but did not function efficiently or economically.

He was also charged with "making disparaging remarks and statements concerning employees and officers of the company . . . clearly calculated to injure, damage or destroy the general reputation and goodwill held by the plaintiff."

Rail-Inspired Delays May Prevent Passage of 5c Air Mail Bill

Delay tactics, believed to have been inspired by railroad interests, may prevent the five cent air mail bill from becoming a law during the present session of Congress.

Early Senate action on the House-passed bill was blocked by two members of the Senate Post Office and Post Roads Committee late last month. As a result of their action, the Committee decided to hold public hearings which were scheduled to begin July 10. Unless the adjournment of Congress is postponed beyond the scheduled adjournment date of around July 20, there was considerable doubt that the bill could be passed this year. The one ray of hope appeared to center around the OPA muddle which may keep Congress in session for several weeks, possibly months, beyond the July adjournment date.

Principal objector to immediate consideration of the bill was Sen. Clyde M. Reed (R., Kans.) supported by Sen. James M. Mead (D., N. Y.). While assuring that he felt the present 8c rate was too high, Reed said he was not satisfied that the rate should be reduced to 5c and insisted that the bill be given more than the "sketchy treatment," that it had received in the House Post Office and Post Roads committee. He warned Post Office officials that he would require that they submit figures and evidence to support their contention that a reduction in air mail to 5c would result in increased revenues for the Department.

Reed, who was active in getting the land-grant rates repealed for the railroads and who actively opposed the Federal Aid Airport bill, called the committee's attention to the fact that the railroads are building new streamlined trains and with Post Office Department approval are equipping them with facilities to carry mail. He said he felt the railroads should have an opportunity to be heard so that they may know what part they are to play in the carriage of mail in the future. At another time during the informal discussion, Reed said he felt that the time was coming when, "letter mail is going off surface transportation and very properly so."

Millard S. Davis Elected To Head Georgia Group

Millard S. Davis, vice president of Southeastern Air Service, Inc., Atlanta, has been elected



Davis

president of the Georgia Aviation Trades Association, at the organization meeting of the association, held at Adel, Ga. Other officers elected were Carson Chalk, president of South Georgia Flying Service of Adel, vice president and Ezra Howington, Atlanta, head of the Aero Corp., secretary-treasurer. Headquarters for the association are to be established in Atlanta.

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Democrats Press to Ratify Air Convention

Senate action on the International Civil Aviation Convention, side-tracked by the fight over OPA until at least July 15, possibly later, remained a key point of interest in U. S. international air transport circles as this issue went to press.

Under the leadership of Sen. Owen Brewster (R., Me.), Senate Republicans were on record as favoring a postponement of consideration of the international air treaty until the new Congress convenes next Jan. 3. Obviously Republican strategy was to forestall a vote until after the fall elections have taken place, based on a belief that there will be some additional Republican faces in the Senate when the 80th Congress convenes. The Democratic leadership however is pledged to get a vote before Congress adjourns and appears confident of having the necessary two-thirds majority to ratify the treaty.

Meanwhile Attorney General Tom Clark, in a letter to the Secretary of State, strengthened the supporters of this country's international aviation policies by upholding the legality of the Bermuda Civil Air Agreement which was made between U. S. and Britain by the executive department of the government.

This was a direct shot to Sen. Brewster who said he had reasons to believe that some of the Justice Department's experts on international law did not believe that the President had the power to make these executive agreements. Brewster and Sen. Pat McCarran (D., Nev.) had succeeded in getting the Senate Commerce Committee, by a vote of 17 to 1, to adopt a resolution which maintained that foreign airlines could obtain operating rights legally to the U. S. through public hearings before CAB or by bilateral treaty.

Clark held that executive air agreements negotiated by the President are in conformity with Section 1102 of the Act which states that CAB, in carrying out its duties, "shall do so consistently with any obligation assumed by the U. S. in any treaty, convention, or agreement that may be in force between the U. S. and any foreign country." He held that this "makes it clear that the Congress contemplated the consummation of agreements with foreign nations relative to international civil aviation." CAB, he said, held a subordinate position to that of the President in granting authority to foreign airlines to operate to the United States.

Brewer With Wiggins Airways

Edward S. Brewer, former senior member of the naval aviation cadet selection board at Boston, has been appointed assistant to Joseph Garalde, president of Wiggins Airways. Brewer, associated with Naval aviation during two world wars, has also been active in civilian flying since 1928.

Joins Santa Fe Line

John F. Davidson, former manager of American Airlines transatlantic operations, has been appointed operations manager for Santa Fe Skyways, Inc. The pilot and aviation specialist assumed his new duties June 15, according to H. R. Lake, president of the Santa Fe air operations.



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National Affairs and Congress

War-Navy Joint Research Board

The War and Navy Departments have announced establishment of a Joint Research and Development Board with Dr. Vannevar Bush, president of Carnegie Institution, Washington, and director of the Office of Scientific Research and Development, as chairman. The board will coordinate all research and development activities of joint interest to the Army and Navy, but will leave administration of such activities to agencies within these departments. It will not provide a material change in actual research but will provide for freer exchange of data between the services and prevent overlapping. The National Advisory Committee for Aeronautics and other government agencies outside of the War and Navy Departments will be invited to participate in activities of the new board.

U. S.-Canada Discussions Postponed

State Department sources have indicated that discussions with the Canadian government over joint use of commercial airports along the U. S.-Canadian border are out of the picture for some time to come because of more pressing matters facing the Department. Pressure for an early conference of the officials of the two governments subsided after the Detroit City Council voted against participating in the development and use of an international airport at Windsor, Can. across the river from Detroit.

While there are at least three other border cities interested in joint use of facilities, their immediate and long range needs hold little promise of inducing early discussions between the two countries. The cities are: Massena, N. Y., Sault Ste Marie, Mich., and International Falls, N. Y.

CAP Gets Federal Charter

President Truman on July 1 signed a bill granting a federal charter to the Civil Air Patrol. It was the first such charter issued in 13 years. CAP is thus set up as a corporate entity—a non-profit educational institution. Until six months after the official end of the war, CAP continues as a federal agency under the War Powers Act, but without appropriations. It is not expected that the charter will affect this status, but will insure permanence.

New Civil Air Attache

Sterling Judson Cottrell, agency sales supervisor for Pan American Airways in Los Angeles before the war, has been appointed U. S. Civil Air Attache with the American Embassy at Bogota, Colombia. In addition to Colombia, he will be accredited to the American embassy at Quito, Ecuador, and Caracas, Venezuela. During the war, Cottrell was in the Navy, serving part of the time as Assistant Naval Attache for Air with the American Embassy at Caracas.

PO Officials to Europe

Robert Burgess, superintendent of air mail for the Post Office Dept.; John J. Gillen, director of International Postal Service, and his assistant, Edward J. Mahoney, will meet Second Assistant Postmaster General Gael Sullivan in Athens, Greece, shortly and the party will proceed to hold discussions with air mail officials of various European countries. Postmaster General Robert Hannegan and Sullivan left some time ago via Army plane for Manila and other points and were scheduled to arrive in Athens some time this month. From Athens the group will proceed to Rome, Berne, Brussels, Paris, Oslo, Copenhagen, Stockholm and Shannon.

Generals Named for Promotion

Lt. Gen. Harold L. George, commanding general, Air Transport Command, and head of the AAF's Office of Information Services, has been nominated by President Truman for promotion to the permanent rank of major general. Recommended to the Senate for temporary promotion from brigadier general to major general were Brig. Gen. William H. Tunner, former commanding general of ATC's India-China Division, and now head of the Continental Division; Brig. Gen. William D. Old, commanding general, Pacific Air Service Command; Brig. Gen. William E. Hall, member of the Chief of Staff's advisory group, Washington; Brig. Gen. Charles F. Born, commanding general, 15th Air Force, Colorado Springs, Col., and Brig. Gen. Frederick W. Evans, commanding general, 2nd Air Force, Air Defense Command, Mitchel Field, N. Y.

Airship Price Down 50%

War Assets Administration has reduced prices of surplus "L" and "K" type airships 50%, effective until Aug. 1. The prices are \$2,500 each for "L" types, \$5,000 for "K" types. "L" has capacity of 123,000 cu. ft., is powered by two Warner 125-hp engines; "K" has 420,000 cu. ft. capacity, with either two Wright 400-hp engines or two 425-hp Pratt & Whitneys.

Jones Rumored for WAA Post

Sources close to the White House said that President Truman was trying to induce Jesse Jones to take over the job of administrator of the War Assets Administration. Resignation of Lt. Gen. Edmund B. Gregory, president Administrator, was reported to be on the President's desk. The work of military personnel brought into WAA by Gen. Gregory has not satisfied Congress and much of the heat for a change in administrators is coming from Capitol Hill.

British Discrimination Cited

Sen. William F. Knowland, (R. Calif.) is awaiting word from the State Department on his complaint that the British are discriminating against American air travelers in British West Indies possessions who travel on American planes. He said he had been advised that Americans, traveling on American planes, were required to get travel permits which were not required of Americans who ride on British planes. In most cases, these credentials are not forthcoming, Knowland quoted from a newspaper dispatch.

First Navy Helicopter Squadron

The Navy Dept. has commissioned its first helicopter squadron, consisting of 17 such craft, at Floyd Bennett Field, Brooklyn. The squadron will be largely experimental, designed to develop further the progress made by the Coast Guard in use of helicopters for air-sea rescues and other work.



Hockaday Comet—A new two-place personal plane, the Comet, has been disclosed by Noel Hockaday, president of Hockaday Manufacturing Co., Burbank, Calif. Plane is expected to be in full production by Aug. 1 and at least 360 units will be manufactured this year, Hockaday said. He is negotiating to acquire a 40,000-sq. ft. factory at Hayward, Calif. Seating two passengers side-by-side, the Comet is powered by either a Continental or Franklin 125-hp engine, has top speed of 140 mph. and cruising speed of 125 mph. It can be operated from mile-and-a-half high small airports with safety even when fully loaded. It is claimed. Landing speed is 50 mph.; rate of climb the first minute, at sea level, 1,150 ft.; service ceiling at 1,800-lb. gross weight, 19,000 ft.; useful load, including 100 lbs. of baggage, 564 lbs. Price with Franklin engine is \$3,550, with the Continental, \$3,425. Prices do not include propeller, selection of which is left to individual purchaser.

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FAMA Buys British Yorks, Tudors for Atlantic Service

By FRANK M. HOLZ

Purchase of British four-engined and twin-engined transports by Argentina's government airline, extended negotiation between Argentina and Great Britain on parallel transatlantic services, and reported new efforts of the Dodero interests to establish air services are among the recent noteworthy events in the important Rio de la Plata region of South America.

Flota Aerea Mercante Argentina (FAMA), the Argentine government-controlled international airline, has purchased three Avro Yorks and three Avro Tudor II four-engined transports from England at a cost of over \$2,000,000 according to the Argentine Aeronautics Department. Evans Thornton, representative in Buenos Aires for A. V. Roe & Co. Ltd., the manufacturer, stated that the Yorks would be delivered this month and the Tudors before the end of the year.

Thornton pointed out that FAMA and British South American Airways would be using the same equipment on transatlantic services as a result of the deal. BSAA has ordered 12 Yorks and has taken delivery of some. When Tudors become available, BSAA will switch to this type as standard long-range equipment.

It is understood that use of British aircraft on the route to London was one of the stipulations in a recent British-Argentine aviation agreement. Last month FAMA made its first flight to London, using a British Short Sunderland flying boat chartered from the Dodero aviation group which has the unique distinction of being one of the largest and most energetic Latin American airline enterprises but with no permanent routes to operate in its own name.

Dodero recently bought control of the Argentine airline Corporacion Sudameri-

cana de Servicios Aereos, whose chief operation was an air service between Buenos Aires and Montevideo, Uruguay. It is reported that there were "repercussions" in Uruguay as soon as the transfer was announced, with "some groups" urging the government to refuse permission for Dodero's aircraft to fly to Uruguay under Corporacion management. It was feared that Dodero might establish a "monopoly" of air and water transportation between the two countries as he already operates the main Rio de la Plata shipping services. There have been other reports, as yet unconfirmed, that Dodero has also acquired control of the Uruguayan airline Compania Aeronautica Uruguaya S. A. (CAUSA) which also operates between Montevideo and Buenos Aires on a pool arrangement with Corporacion. Other international developments:

● International Aera Mexicana is being organized as a Mexican-controlled airline to provide "de luxe nonstop service between the capitals and principal cities of the U. S., Mexico and Canada," according to a reported statement by Gene Tunney, former heavyweight champion and one of the backers of the enterprise with Kenneth Frank of Havana and Arthur A. Lynch of New York. Frank was one-time president of Dixie Airlines, which failed to get a CAB certificate, and was also connected with Expreso Aereo Inter-Americano. A Mexican business group participating in the airline is headed by Ricardo Gonzalez Montero. Capitalization is reported as 10,000,000 pesos (about \$2,000,000) and operations will begin with four DC-4s and two DC-3s. The Mexican Government has approved the following two routes: From Mexico City to Houston, Washington, New York, Montreal and Toronto; from Mexico City to San Diego, San Francisco, Portland and Vancouver.

● Dennis Handover will be in charge of traffic matters in the United Kingdom and Eire for the Swedish airlines A. B. Aerotransport and Swedish Intercontinental Airlines. Handover has over 25 years of airline experience, having had traffic posts with Imperial Airways and BOAC and recently with Railway Air Services. Comment from London implies that Handover quit his most recent post because of past differences with Gerard d'Eranger, who now heads British European Airways which will absorb Railway Air Services under the government's airline nationalization plan.

Cruzeiro Buys Martin 202s

The Brazilian airline Servicos Aereos Cruzeiro do Sul purchased 10 Martin 202 transports, according to an announcement this past fortnight by the airline's president, Jose Bento Ribeiro Dantas.

● In line with legislation to nationalize its scheduled airlines New Zealand has organized the New Zealand National Airways Corp. as a government agency. Air Vice Marshal Sir Leonard Isitt, former Chief of Air Staff, has been appointed chairman. For the time being, Union Airways and the other private operators will continue services as heretofore.

● Roger C. Pugh has been named Airport Manager for the London Airport (Heathrow). He was formerly in charge of the base at Hurn where he is succeeded by Group Capt. W. R. Cox.

● The airlines Air France, Swissair (Switzerland) and ABA (Sweden) are reported to be operating a joint night mail service connecting Stockholm, London, Paris, Zurich and Amsterdam. A still more extensive night mail service—in which nine airlines will cooperate—is expected to be resumed about July 15 when certain installations will be completed at Schiphol Airport, Amsterdam, which is to take over the role of night air mail center held by Cologne before the war. Air mail posted in the evening will be delivered the following morning at Amsterdam, Basel, Brussels, Prague, Copenhagen, Stockholm, Oslo and London.

● Channel Islands Airways has taken delivery of the first Wayfarer, the passenger version of the Bristol Model 170. The freighter cargo version is also in assembly line production. Output is being stepped up and the company expects to produce 15 Bristol-170 aircraft per month in the near future.

● William R. Verdon Smith, chairman of the Bristol Aeroplane Co., has been elected president of the Society of British Aircraft Constructors, the trade association for British manufacturers of aircraft, engines, instruments and other aeronautical equipment. Verdon Smith is 33 years of age, the youngest president ever elected by the SBAC.

Establishment of PICAO Regional Offices Expected

The Council of the Provisional International Civil Aviation Organization (PICAO) has resumed its sessions and is expected to set up its first regional office in the near future. Dublin is widely regarded as a certain choice for headquarters of the North Atlantic Regional Office while Paris is favored as headquarters for the European-Mediterranean region.

It is expected that PICAO will take over the Paris offices of the Commission Internationale de Navigation Aerienne (CINA), an intergovernmental aviation organization formed in 1919 which is expected to liquidate and transfer its records to PICAO.

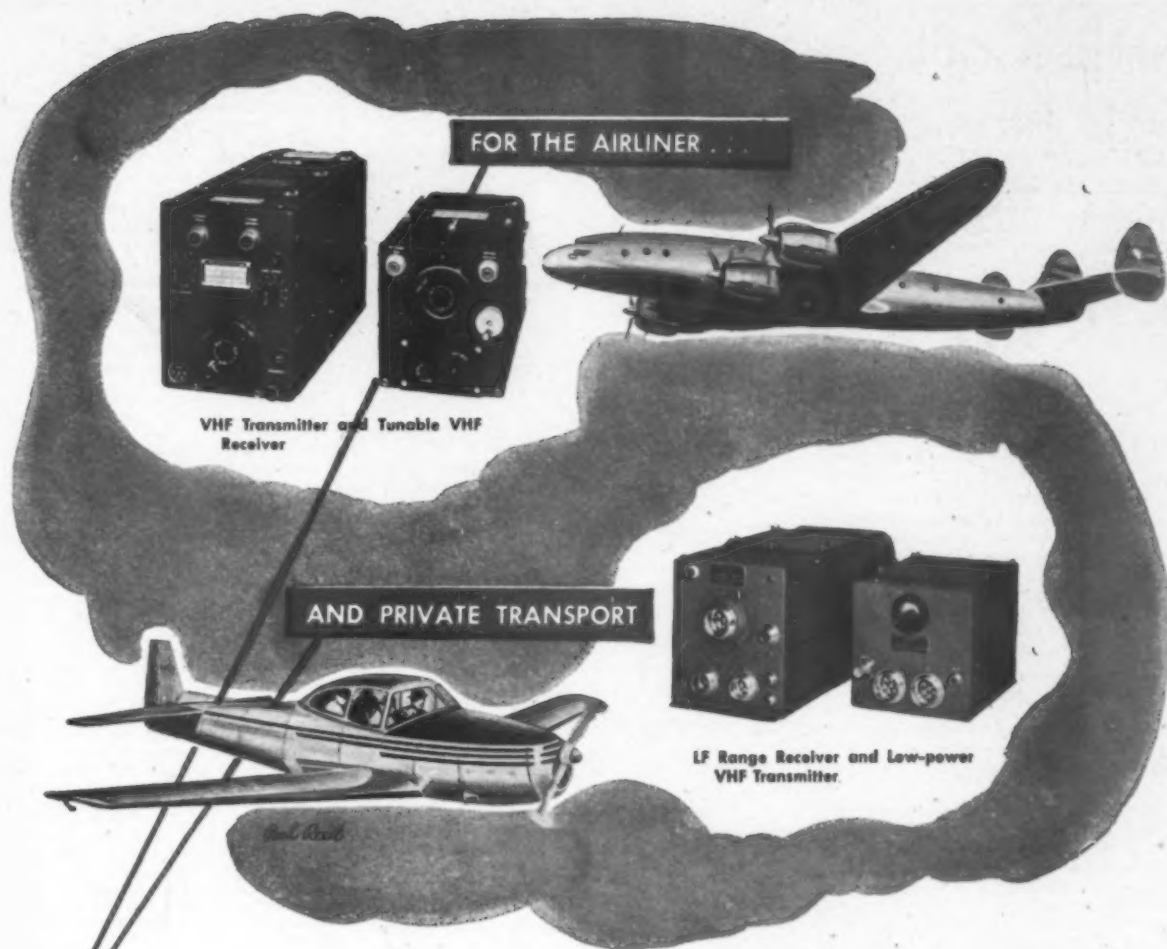
The first PICAO regional conference for the Caribbean area has been scheduled to begin August 26, 1946. The U. S. is the convening government but the State Department has not yet announced the site of the meeting. It is believed that it will be either Miami or New Orleans.

The PICAO Division on Aerodromes, Air Routes and Ground Aids opened its second session this past fortnight with delegates from 17 nations in attendance.



First Tailless Swept-back Jet—

The de Havilland DH-108 is an experimental jet-propelled aircraft built to test the performance of swept-back wings at high speeds. Initial test flights were made by G. R. de Havilland, chief test pilot for the de Havilland Aircraft Co. of Hatfield, England, and son of Sir Geoffrey de Havilland, the founder. The company claims that it has already been shown that the swept-back delays the onset of compressibility. The firm is now designing the DH-106, a jet airliner which will incorporate the swept-back wing.



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Battle Continues Against CAB Non-Scheduled Rules

Board Clarifies Position; IAT Proffers 22½¢ Mail Pay

THE non-scheduled uncertificated air carriers continued their fight during the past two weeks against the Civil Aeronautics Board's proposed economic regulation of their industry, and indications were that despite the fact that the first big publicity "splash" was over, these carriers would continue to exert pressure to obtain less stringent rules.

July 22 was the deadline by which CAB had asked for comments on its proposed long-range economic regulations, and the non-scheduled group was hurrying to line up supporters before that date.

(The long-range CAB proposals divide the non-scheduled carriers into two groups: Class A including carriers using any single aircraft unit having a gross weight in excess of 6,000 lbs. and a total weight exceeding 15,000 lbs.; Class B including all others. Under the proposals, carriers flying more than 10 round trips monthly between any two points would cease to be non-scheduled. In addition, the larger Class A carriers, while not required to get CAB certificates, would be subject to certain provisions of the Civil Aeronautics Act).

Widespread publicity was obtained by the Institute of Air Transportation, one of the groups representing the non-scheduled carriers, when it released a story stating that its members could carry air mail at rates making 3¢ air mail postage possible. The same message was carried by IAT in a full-page advertisement in the New York Times and the Washington Post. The ad, entitled "Why Throttle Us?" contained a coupon which readers were urged to clip and send to the chairman of CAB, supporting IAT's stand on 3¢ air mail and air parcel post.

Outspoken Gael Sullivan, Second Assistant Postmaster General, branded IAT's 3¢ air mail proposal as "silly—a 24-hour wonder" publicity yarn. He also pointed out that while 3¢ air mail would make a profit by itself, the Post Office Department as a whole would have a big deficit because the 3¢ rate would leave less profit to cover losses on other classes of mail.

Following this publicity came an important release from CAB, containing 10 questions and answers designed to clarify its non-scheduled proposals (see complete text on page 32).

Although there was still no indication that any great number of the operators were quitting because of CAB rulings, Siegfried O. Samuelson, IAT's executive vice president, admitted that if CAB wanted to get tough it could probably put a great majority of the companies out of business immediately.

Holding his first Washington press conference, Samuelson also startled some observers by stating that IAT members would carry air mail for 22½¢ per ton-mile, exactly half of the 45¢ per ton-mile now received by a good number of the scheduled airlines.

Samuelson accused the domestic airlines of starting a rate war in the freight-carrying field. He singled out American Airlines' proposal to have its contract air

freight division carry freight at rates as low as 11¢ per ton-mile. "How they can do that economically we don't know," he asserted. He implied that if there was not the threat of competition from the non-scheduled group, American's rates, as well as those of other lines, would be much higher—above 20¢ per ton-mile.

It also became evident last week that there was a definite break between IAT and the Independent Airfreight Association, although both groups are fighting the CAB proposals. IAA was formed by three of the largest cargo carriers—National Skyway Freight Corp., Slick Airways and U. S. Airlines. It is believed that these carriers felt that they could campaign more successfully if they did not have to worry about the wants of some of the small one and two-plane passenger operators in IAT.

Robert Prescott, IAA president, and president of National Skyway Freight Corp., said he expected at least three other non-scheduled cargo carriers to join the group, and he made it plain that the three organizing companies wanted no part of those uncertificated carriers who are transporting passengers.

Other non-scheduled developments:

Davis Airways, Inc., has inaugurated operations out of Logan International airport at Boston, offering tourist service along the east coast to Cuba. Charter flights, freight transportation and aerial photography departments are also in operation. DC-3 equipment is being used.

Plantation Airlines, Inc., Peter O. Knight Airport, Tampa, Fla., is reported currently using Cessna equipment to operate one round trip daily between Tampa, Arcadia, Ft. Myers, Clewiston, West Palm Beach and Miami. Sam Collier is president of the company.

Midwest and Southern Airline, South Bend, Ind., has opened intrastate operations with three daily round trips serving South Bend, Indianapolis and Terre Haute. Other flights, providing service to Ft. Wayne, are to be instituted soon.



Organizers of IAA—The organizers of the Independent Airfreight Association, Inc., formed to represent contract air cargo carriers in their fight against proposed CAB regulations, are, left to right, Earl F. Slick, president of Slick Airways; Harry R. Playford, president of U. S. Airlines; and Robert W. Prescott, president of National Skyway Freight Corp. Prescott is president of the new organization.

Coupons to CAB

The Civil Aeronautics Board has received about 750 coupons from the advertisement which the Institute of Air Transportation ran recently in the New York Times and the Washington Post. The coupon, contained in the "Why Throttle Us?" ad which urged less stringent economic regulation for non-scheduled air carriers, put the signer on record as supporting IAT's demand to be allowed to carry air mail at a 3¢ postage rate and also to transport air parcel post. Considering the readership of the papers, the response is said to be only fair. Greatest response came from the New York area. In addition, CAB has received about 100 letters prompted by the ad, most claiming that the Board is stifling private enterprise. A form letter accompanied by a copy of the Board's press release explaining its stand on non-scheduled air transport in question-and-answer form is being mailed to each person who submits a coupon.

Slick Airways, has moved its division headquarters from Oklahoma City to Amarillo because of the more strategic location, it is reported. M. P. Hooker, asst. to the v.p., operations will be in charge of the Amarillo office.

Atlantic Central Airlines has inaugurated three flights daily between Central Airport, Camden and Newark Airport, using Lockheed Lodestars. Current schedules between Newark and Atlantic City call for stops at Camden but direct service between Newark and the shore city is to be offered later this summer.

Long Island Air Lines will use Grumman Widgeons in the daily 19 round trip schedules, linking New York with Montauk Point and the Hamptons. The seaplane base at 23rd St., and East River will be the city terminal. Flights of 60 minute duration are scheduled, five each for Southampton, Easthampton and Westhampton and four to Montauk.

Matson Opens Charter Service to Hawaii

The Matson Navigation Company, whose application for a certificate which would have permitted it to operate scheduled airline service between the West Coast and Hawaii was rejected by the Civil Aeronautics Board last fortnight, has begun "non-scheduled common carrier" service between the mainland and Hawaii. A company announcement stated that two Matson-owned DC-4s will operate "between various mainland points and Hawaii on an 'anywhere for hire' basis," without "fixed destinations or schedules."

Matson's first "non-scheduled" flight was made from Oakland, Calif., to Honolulu a week ago. The DC-4, piloted by E. S. Sloniger, formerly an American Airlines' division chief pilot, carried fresh fish, strawberries, wearing apparel and flowers. The shipping company operates a maintenance and conversion base for aircraft at Oakland. Other trips, said Matson, would be operated "as company business and available traffic warrant."

Although CAB's Hawaiian Case decision denied Matson's application for a San Francisco-Honolulu certificate, the steamship line will participate in the reargument of the case which CAB has called in an effort to break a Board deadlock on the selection of a carrier to fly between Los Angeles and Honolulu.



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★ "Alaska is a grand place to live, work and play. We have more than 40 aircraft in our fleet, seven of them DC-3's. Two DC-4's are on the way. When you come to Alaska, fly with me!"



Route of the Starliners

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7 Non-Scheduled Lines File Data With CAB As Deadline Nears

Informational reports now required to be filed with the Civil Aeronautics Board by all non-scheduled air carriers are coming in to CAB's Economic Bureau slowly, although July 15 is the deadline for such reports for companies who were operating prior to June 15. As this issue of *AMERICAN AVIATION* went to press, seven non-scheduled carriers had reported to CAB on such items as their officers, numbers and types of aircraft, operating statistics, profit or loss statements, etc. The reports are required by the revised section 292.1 of the Economic Regulations, which the Board made effective when it issued its opinion on the Non-Scheduled Investigation (Docket 1501) Summaries of the reports of the seven companies appear below:

National Air Cargo Corp., 940 S. Los Angeles St., Los Angeles, Calif. Officers: Stanley A. Jackson, president; Mather A. Carson, v. p.; H. R. O'Neill, Jr., secretary-treasurer; L. E. Tripp, director. Operating charter coast-to-coast service for passengers and cargo, using five DC-3s and buying five more. Rates: 13c to 20c ton mile. Averaging two long hauls daily since beginning operations December 18, 1945. In April and May, flew 117,500 plane miles carrying 154,845 lbs. cargo and 354 passengers. Total revenue for the two months, \$96,011, net loss (two months \$11,826) net profit in May \$6,918. Employs 45.

San Diego Sky Freight, Gate Four, Lindbergh Field, San Diego, Calif. Partners: Edwin F. Bennett, Harry L. Semar, Walter H. Ray, Arnold J. Hecker and Joseph J. Hecker. Passengers only on charter in U. S. and Mexico, using one DC-3. None on order. Rates: San Diego to Chicago, \$100; Pittsburgh, \$115; Philadelphia, \$120; New York, \$135, including tax. As of March 15, flew 30,000 revenue miles for total revenue of \$31,310. Net profit, \$12,445. Employs one full-time pilot and one part-time mechanic. All partners are pilots.

Southern Commercial Air Transport, Inc., 302 Balter Bldg., New Orleans. Operating Base: New Orleans Municipal Airport. Officers: Paul R. Davis, president; William J. Simmons, v. p.; George C. Darr, secretary and general counsel; Frank S. Kelly, treasurer. Passenger and freight non-scheduled operations aimed at eventual feeder service in Mississippi Valley, using one C-47, has another on order. Since Jan. 1, 1946, flown 11,830 ton miles and carried 307 passengers 352,169 passenger miles. Net loss to date, \$12,157. Employs 11.

Western Continental Air Lines, Inc., Grand Central Airport, Glendale, Calif. Officers: William E. Candy, president; Rex Hardy, Jr., v. p.; William E. Hughes, secretary; Kenyon Boocock, director; and B. Allison Gillies, director. Flying passengers only in non-scheduled charter operation in the U. S., Canada and Mexico, using one Cessna T-50, one Grumman G44A and one Lockheed 10A. Rates: 25¢ mile on the Cessna and Grumman and 60¢ a mile on the Lockheed. Began operations February 18, 1946 and has carried 85 passengers 85,240 miles. Total revenues, \$7,634; net profit, \$1,427, less depreciation. Employs five.

Viking Air Transport, Grand Central Airport, Glendale, Calif. Officers: R. R. Hart, president; R. W. Reed, v. p. and treasurer; E. Willingham, secretary. Directors: R. R. Hart, R. W. Reed, R. L. Donley, J. B. Lewin, J. H. Goodman, John Park, and H. E. Ljung. Flying cargo and passengers on non-scheduled contract, using three DC-3s. None on order. Since January 23, 1946, has flown 112,500 miles carrying 91,968 lbs. cargo,

CAB Answers Non-Scheduled Questions

(Following is the full text of the Civil Aeronautics Board's answers to specific questions on present and proposed regulations covering non-scheduled flying.)

1. Q. What is the status of "contract carriers"?

A. Whether scheduled or nonscheduled, they are not subject to the Board's economic regulatory powers. Except for aircraft and airman safety requirements and air traffic rules, relevant provisions of the act apply only to common carrier operations. Contract or other non-common carriers are not affected by Part 42 of the Civil Air Regulations or by the Exemption Regulation. Contract carriers, however, should fully inform themselves as to the circumstances whereby common carriage may evolve from what initially is a contract operation.

2. Q. Are intrastate carriers regulated?

A. If the operations, whether scheduled or nonscheduled, are solely within a single state and do not involve carriage of interstate traffic, they are not subject to the Board's economic jurisdiction. Such intrastate carriers must observe aircraft and airman safety requirements and air traffic rules but are not required to obtain air carrier operating certificates.

3. Q. How is "charter service" regulated?

A. The term is too loosely used to have significant legal meaning. The tests are whether the operations are (a) interstate, (b) common carriage, and (c) scheduled. Most operations described as "charter service" appear to involve interstate common carriage but may be scheduled or nonscheduled depending upon the scope and regularity of operations between any two given points.

4. Q. Is there any special authority for services between two points not served by regularly scheduled airlines?

A. No. Under the Exemption Regulation, nonscheduled service may be performed between any two points whether or not such points are served by a certificated air carrier. Scheduled service may not be performed until the operator has been issued a certificate of public convenience and necessity authorizing such service.

5. Q. Will the proposed new exemption regulation put nonscheduled operators out of business?

A. No. The proposed amendment No. 3 of section 292.1 does not materially differ from the existing Exemption Regulation insofar as it relieves nonscheduled operators from obtaining certificates of public convenience and necessity. It is proposed, however, that larger nonscheduled operators be required to comply with certain other provisions of Title IV of the Act concerning tariffs, rates, carrier relationships, etc. This proposed regulation is in tentative form. Comments are invited from all interested persons and will be considered in drafting the regulation for final adoption. Extensive regular services, even though represented to be "nonscheduled," have never been authorized by the Board in any manner other than by issuance of a certificate of public convenience and necessity as required by the Act.

6. Q. What is the 10-trips-per-month rule?

A. The proposed regulation would regard a service involving more than 10 round-trips per month between the same two points for a period of two consecutive months as a scheduled operation, unless due to unusual, emergency, or non-recurring conditions. However, the 10 trips is not the exclusive test. A lesser number of trips establishing a pattern of service involving reasonable regularity would also, as it now does, constitute scheduled service requiring certification.

7. Q. Is the Board authorizing establishment of any new scheduled airlines?

A. Yes, whenever the requirements of public convenience and necessity are demonstrated in a public hearing. The suspension of all such proceedings required during the war has been terminated. Since March 28, 1946, the Board has granted certificates (for 3-year trial periods) to seven air carriers not previously certificated. In addition, there are pending seven unfinished "area" cases, each involving numerous applications covering a large section of the United States, which are under active consideration with prospects of additional authorizations to new carriers. In addition, a consolidated proceeding, involving applications for exclusively air cargo services throughout the United States, is soon to be heard.

8. Q. How are the Exemption Regulation and Part 42 of the Civil Air Regulations related?

A. They are of equal applicability except for effective dates.

(a) They neither apply to nor authorize scheduled air transportation.

(b) Intrastate carriage is not affected.

(c) Contract carriage is not affected.

(d) Nonscheduled operators are required to file registration statements with the Board by July 15, and applications for safety operating certificates with the Administrator by August 1, 1946.

9. Q. What is the status of Express companies, Forwarders, and Travel agencies?

A. Persons who undertake generally to arrange for interstate common carriage by air for others, but do not operate aircraft, are termed "indirect air carriers" by the Act. The Exemption Regulation does not apply to indirect air carriers. Their activities can be conducted only after they have obtained a certificate of public convenience and necessity, or an exemption order supported by a showing of the requisite "limited extent", "unusual circumstances," and public interest.

10. Q. What was the decision of the Board in Docket 1501, Investigation of Nonscheduled Air Services?

A. (a) That the principles of the existing Exemption Regulation should temporarily be continued in effect;

(b) That nonscheduled operators should be required to file registration statements; and

(c) That further regulation of nonscheduled operators should be deferred until additional data had been accumulated and comments received after public circulation of the proposed new regulation.

and 534,000 miles carrying 267 passengers. Total revenue, \$52,000. Net loss \$14,563. Employs 26.

Iowa Airplane Co. Inc., Municipal Airport, Des Moines, Ia. Officers: F. C. Anderson, president and treasurer; Leo P. Brennan, v. p. and secretary. Available for non-scheduled charter, both passengers and cargo, in U. S., Canada, and Mexico, using eight 2-place cabin, two 4-place cabin, one 5-place open and one 2-place open planes. Rates: 11¢ to 20¢ a mile, dependent upon

plane chartered. Net profit to date, \$2,366.50. Employs 22.

Air Facilities Corporation, 53 Broadway, New York, N. Y., Operations Base, (temporary), Roosevelt Field, Mineola, N. Y. Officers: James Starr, III, Norbert Aubuchon, and Edgar Barry Grear. Straight non-scheduled charter carrying passengers in U. S. four trips a month using one Lockheed 12A. Rates: 44¢ a mile, 25¢ a mile dead-head, plus taxes and all landing fees. Began operations January 1, 1946.

No. 6 IN A SERIES, featuring some of the 700 Esso Aviation Dealers throughout 25 states



MR. W. W. EDMONDSON, manager of Lynchburg Air Transport and Sales Corporation, Lynchburg, Virginia is famous not only as an Esso Dealer and successful airport operator, but also as a skilled and daring stunt flier. His stunts vary from outside loops and inverted flying 15 feet above the ground to dead-stick landings from 5,600 feet. Fuels are especially important under such conditions — and "Woody" Edmondson uses and sells Esso Aviation products.

"Esso Products have increased our Transient Trade!"

SAYS OPERATOR EDMONDSON

"In over 6 years we have never had a single complaint about Esso aviation gasoline or oil. And in this time our gallonage has climbed continually. Furthermore, we have found that by using Esso products our transient trade has increased considerably indicating that we have a good selling point right in the name Esso."



NO WONDER Esso has helped increase the business of many an airport operator—every big gun in the arsenal of hard-hitting sales promotion and advertising stands ready to back up our 700 dealers! And every one of our products is backed up by over 40 years of aviation experience, over 2000 research scientists and the industry's largest aviation test cell.

MR. AIRCRAFT OWNER: Why not tear off this list and put it in your map case for ready reference on future trips throughout Virginia?

Alberta Air Associates, Inc., Alberta; J. L. Bolland, Ashland; A. A. Rucker Airport, Bedford; Garner Aviation Service, Chester; J. D. Lincoln, Chilhowie; Southern Airways of Danville, Danville; Brickert Oil Company, Farmville; Garner Aviation Service, Fredericksburg; Coiner Flying Service, Frant Royal; Galax Airport, Inc., Galax; Gordonsville Municipal Airport, Gordonsville; Shenandoah Airways, Harrisonburg; Hummel Aviation Service, Hopewell; Garner Aviation Service, Hot Springs; Lawrenceville Flying Service, Lawrenceville; Leesburg Air Service, Leesburg; E. N. Bare Flying Service, Lexington; Lynchburg Air Transport & Sales, Lynchburg; Ashburn Flying Service, Manassas; Montross Flying Service, Montross; Buford Aviation Service, Inc., Route 460, Montvale; Narrows Airport, Narrows; Glen Rock Flying School, P. O. Box 2362, Norfolk; Norton Aviation Service, Norton; Petersburg Municipal Airport, Petersburg; Peninsula Airways, Phoebus; Pulaski Municipal Airport, Pulaski; Clinch Valley Airways, Richlands; Central Airport, Richmond School of Aviation, Richmond; Roanoke Municipal Airport, Roanoke; John Eura Aviation Service, Suffolk; Virginia Air Service, Warrenton; Waverly Municipal Airport, Waverly; Richmond School of Aviation, West Point; Aviation Service, Inc., Scott Field, Williamsburg; Garner Aviation Service, Windsor.

Load Factors, Schedule Completions Increase

Passenger load factors of certificated carriers showed a slight increase in April over March, from an industry average of 84.4% to 84.8%, according to reports to the CAB, while the percentage of scheduled miles completed showed a substantial increase for the industry from 96% in March to 98.9% in April.

Following are the airlines reporting passenger load factors of 85% or above for one or both of the months March and April:

Carrier	March	April
American	84.9	86.3
Braniff	88.5	90.7
Eastern	88.8	not avail.
Hawaiian	91.5	87.7
National	92.0	88.0
Northwest	87.4	88.0
TWA	86.4	87.9
United	86.2	85.8
Industry Av.	84.4	84.8

During March, 11 carriers completed 95% or better of their scheduled miles, but 16 carriers reached or surpassed the 95% figure for April. In April Braniff and Chicago & Southern tied for top place with 98.8% each.

The list of carriers completing 95% or better of their schedules in one or both of the months of March and April is:

Carrier	March	April
American	97.7	99.3
Braniff	98.8	99.8
C & S	96.7	99.8
Continental	98.3	99.6
Delta	99.2	99.6
Eastern	97.6	not avail.
Hawaiian	100.0	99.2
Inland	96.0	97.0
MCA	95.7	99.5
National	92.3	96.1
Northwest	92.7	99.7
PCA	94.4	99.1
Pioneer	91.9	98.5
TWA	94.6	99.5
United	95.0	99.0
Western	99.2	99.0
Industry Av.	96.0	98.9

VHF Radio Now in Use on United's Entire System

Very high frequency radio on 122.3 megacycles is now the primary plane-to-ground communications channel on United Air Lines' entire system, according to J. R. Cunningham, director of communications. Equipment used on UAL planes is the ARC-1 ten channel transmitter-receiver. Previously used high frequency equipment is being retained as an alternate to the VHF.

In addition to installing VHF in planes and ground stations, United is planning to link all ground stations by telephone to extend the range of the equipment and to permit monitoring smaller stations through major relay points.

Norway Gets DC-4s

Norwegian Air Lines (DNL) has accepted delivery of two new DC-4s, piloted from the Douglas factory to Oslo by Niels Steen and Dag Krohn. The planes are to be outfitted for service between Scandinavia and the United States.



On Record Flight—Jimmy Doolittle, right, vice president of Shell Union Oil Corp., shows here with Harvey L. Williams, executive vice president of Chicago & Southern Air Lines, recently flew one of C&S's new DC-4s from Houston to Chicago, 938 miles in 3 hrs. 37 minutes, a new record. Average speed was 261 mph. Above their heads is seen the C&S flight information panel, situated on the forward bulkhead of the cabin. The panel, which flashes pertinent trip data to passengers, is operated by the stewardesses. It contains 27 messages.

Thunderstorm Test Flights Started for TWA by Bob Buck

New doctrine on the dangers of flying into thunderstorms and other rough weather, and on commercial transport uses of electronic equipment in storm detection, should be available shortly as a result of tests undertaken by TWA, Inc.

Using a P-61 loaned by the Air Materiel Command at Wright Field, TWA's Capt. Bob Buck and a trained crew are flying into the roughest weather they can find in an effort to analyze and make recommendations to help pilots get through or around storms.

Complete results and findings of the bad weather flights, in addition to supplementing TWA's all-weather flying data, will be turned in to Wright Field and made available for general study.

Capt. Buck is the pilot who recently skipped an Army B-17 in a round-the-world flight to gather information on storm conditions. A former TWA chief pilot, now research pilot, he has spent most of his time since 1943 studying bad weather for the Army and TWA.

Old Chicago Terminal to House International Lines

The present administration building at Chicago Municipal Airport is slated to become the city's terminal for international flights when the new and larger terminal building under construction at 55th St. and Cicero Ave. is ready for occupation late this summer.

The Chicago Public Works Commission reports that four international airlines have agreed to pay for remodeling the terminal, estimated at between \$20,000 and \$25,000. These carriers include American Overseas Airlines, TWA, Pan American Airways, and Trans-Canada Air Lines. Customs, immigration, public health, and agriculture officials will have offices at the international terminal.

Braniff Buys Martin, Douglas Transports In \$10,000,000 Order

Braniff International Airways has announced the purchase of 12 Martin 303 transports, six Douglas DC-6 sleepers and five standard DC-4 types. This is part of the long range program, adopted by Braniff when the CAB granted the operator 7,719 miles of international routes, to provide service to 10 nations south of the Rio Grande. Approximately \$10,000,000 dollars are involved in the transaction, which covers maintenance equipment, as well as aircraft.

All of the new planes are to carry the latest company insignia, a trans-hemispheric map with the name of Braniff International Airways. This is the sixth trademark to be adopted by the Braniff organization since it began operations in 1928.

UAL Orders 15 More Martins

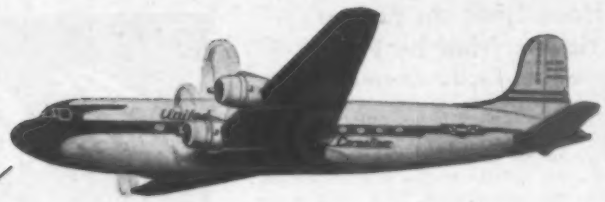
United Air Lines has placed an order for 15 additional Martin 303's, bringing its total orders for this type, to 50. The original order for 35 Martin transports included an option for 35 more, according to W. A. Patterson, president. Total cost of the 303's was fixed at \$12,857,000, with delivery to begin next July. The latest Martin order supplements other orders for DC-4's and DC-6's, bringing United's total of new equipment on order to \$43,500,000, Patterson said in his announcement.

Connies to Resume Altitude Flights With Improved Drive Shafts

After three weeks of enforced operation at lower altitudes, the Lockheed Constellations of Transcontinental & Western Air, Pan American Airways, and American Overseas Airlines were expected to be flying again at their regular 20,000-30,000 ft. levels by mid-July following the installation of newly designed cabin supercharger drive shafts approved by the Civil Aeronautics Administration.

The CAA on June 22 had ordered the removal from all Constellations of the shaft by which the engine drives the cabin pressurizer, as a result of preliminary investigation of Pan American Airways' accident involving a forced landing at Wilimantic, Conn. Since that date the airlines have been flying the big, four-engine transports with cabin superchargers disconnected, and were thus restricted by the CAA to normal flight altitudes for non-pressurized aircraft. The lower altitude flying meant slower schedules and decreased potential payload.

The redesigned assembly is said to consist of a metallurgically-improved drive shaft, improved and better lubricated bearings to carry this shaft, and a sturdy steel shield to surround the installations. There is also a fire extinguisher outlet at the rear of the drive shaft where it enters the airplane wing.



UNITED'S AIR FREIGHT SERVICE AIDS BUSINESS EVERYWHERE

Most, if not all, modern businesses find it necessary to make frequent shipments and get needed supplies by the quickest possible means. And the fastest way to ship almost any product is by AIR.

United Air Lines—first to operate all-cargo transports—offers direct, low-priced AIR FREIGHT SERVICE to industries from coast to coast.

Almost everything is now being shipped by Air Freight—and every United Mainliner has cargo space. A Mainliner 230, for example, carries 6,500 pounds of cargo besides its 44 passengers.

Business everywhere today is profiting from the many advantages of shipping freight by air.

UNITED AIR LINES
PASSENGERS • MAIL • EXPRESS • FREIGHT



Nylons



Timely Style Clothes



Fresh Cut Flowers



Baby Chicks



Drugs and Serums



Fresh Fruits



Automotive Parts



Electrical & Communication Equipment



Millinery



Replacement Parts

24-Hour Limit on Pickup Of Tickets Tried by PCA

Pennsylvania-Central Airlines is experimenting in Washington with new ticketing procedures which are designed largely to solve the "No-Show" problem and greatly reduce the time that an airline patron now spends at the ticket counter.

Under the new system, PCA notifies the prospective patron by phone that space has been reserved for him on a specific flight. In Washington, the customer is notified of the location of PCA's two downtown ticket offices; he is asked which one of them is most convenient for him to visit and then he is told to pick up his ticket within 24 hours. The office named is then furnished by PCA's reservation office with all of the pertinent information for ticketing the passenger. When the customer calls at the ticket office, his ticket has been made out and only the exchange of money for the ticket is necessary to complete the transaction.

Robert Huter, PCA's Washington reservations manager, states that the procedure is cutting down the waiting time at ticket offices to 10% of what it formerly was. In addition, it is helping to solve the "No-Show" problem that has plagued the airlines ever since the priorities system was abandoned.

Huter stated that public reaction to the new procedure has been highly favorable because the customer appreciates the fact that waiting time has been reduced considerably. While 90% of reservations are now made by phone, Huter states the new procedure is encouraging an even greater reliance on telephone arrangements.



Something New on the nose of the New CULVER

CULVER'S first post-war presentation, the Culver "V" joins the long and impressive list of planes equipped with Sensenich propellers. Right on its nose is the new Skyblade, the lightweight, two position, controllable pitch propeller with performance that adds "pull" to every horsepower. Culver is first to specify the Skyblade as standard equipment. Other models—both controllable and ground adjustable are approved for other aircraft.

Propeller repair service (all makes) available at Sensenich's PROP-SHOP.

Standard of Performance



SENSENICH BROTHERS

LANCASTER, PA. GLINDALL, CALIF.

Airline Commentary

We've harped plenty on the tipping of porters at airports . . . Now we have a letter from a "constant reader" which exposes another evil which we may delve into later—the tipping of limousine drivers . . . Says this reader: "I took a limousine from the Statler to Washington National Airport. There was only one other passenger. The driver did not handle my bag, which weighed 13 pounds. The stated fare is 75c. On arrival at the airport, I handed the driver a dollar bill, he took it, said "thanks" and walked away. I at least like to have the choice of tipping, and in this instance there was no tip required. It was an outright racket. During this quick transaction of paying a buck for a 75c ride, a porter grabbed my 13-lb. bag and had a firm grip on it. So I let him carry it. I went to American Airlines, first counter inside the door. I took just 30 steps to reach it. I had to fork over a dime to avoid that scornful look which porters know how to give so well. Washington National Airport is getting a bad reputation from this sort of thing" . . . We've had this "outright racket" of tipping limo drivers worked on us, and it isn't good . . . One solution has been suggested: the driver should be compelled to collect the fare at the originating point, rather than at destination . . . This system is used successfully at some points . . .

Newspapers (and magazines) often make mistakes—typographical errors, mistakes in identity etc. . . . It's often impossible to catch them when you have a deadline to meet . . . But one mistake made recently by the Chicago Journal of Commerce has sure caused some chuckles in the airline business . . . The Journal of Commerce was reporting Pan American Airways' financial statement for 1945, giving the company's profits, etc., and it said that the financial position was explained in a letter to stockholders by "Jack Frye, president" . . . Well, Jack Frye is a president, but he happens to be president of TWA, which has a slightly different philosophy on certain matters than PAA . . . But ignoring PAA President Juan Trippe, the newspaper awarded Frye the job, with seven different mentions in the story . . . One of the quotes attributed to him says that "Fair play would indicate that if domestic air carriers are now to participate in the international field, our overseas air carriers, now authorized to operate from the United States only in the international service, should participate commensurately in the far larger domestic field" . . . We doubt whether Jack Frye would go along with this statement 100% . . . Anyway, it was an amusing slip . . .

Last issue we printed a letter that we had written to Second Assistant Postmaster General Gael Sullivan . . . In case you missed it, we told him that we didn't think much of the picture of the airplane which appears on the present 8c air mail stamp . . . We suggested that when 5c air mail becomes a reality, it might be appropriate to have a series of stamps with pictures of different airplanes that carry the mail—DC-4, Constellation, air mail pickup plane, etc. . . . Mr. Sullivan referred the letter to Joseph J. Lawler, Third Assistant Postmaster General, who seems to have jurisdiction over stamp design . . . His answer follows:

"Your idea for a new series of air mail stamps depicting on each an individual type of plane now engaged in the carrying of the mails seems very good from an artistic point of view, though I cannot help but feel that uniformity such as offered by the current series best serves the postal service, as it permits the more ready recognition of air mail matter, so essential to its expeditious handling.

"With regard to the actual designing of the plane appearing on the current series, you are entirely correct in your assumption as to the effort made to prevent recognition. It has always been the policy of the Department to refrain from employing subject matter for stamp designs which might be looked upon as having any advertising value. Your suggestion, however, that all types of planes engaged in the carrying of the mails be employed might be looked upon as overcoming this objection. It is at least an interesting thought and will be fully considered before the revision of the current series is effected."

We certainly agree with Mr. Lawler's statement that air mail must have expeditious handling, but we doubt that a series showing different airplanes would slow it up any . . . And as long as the Post Office was impartial it need have no fear of advertising value . . . We are glad we have given Mr. Lawler an "interesting thought" and we hope for action . . . We are told that other people hold a similar hope . . .

Jerry Dobben of the American Aviation staff flew to Holland recently on KLM's first scheduled trans-Atlantic flight . . . Upon his return he wrote us the following memo which we think you'll enjoy reading:

"While on my recent trip to Holland and Belgium, I had an opportunity to pick up the requirements of hostesses serving on planes operated by Air France. I thought American air line hostesses might like to read the requirements and then heave a couple sighs of relief. The Air France hostess must have a baccalaureate degree (whatever that means) and preferably a doctorate in some cultural field; must speak perfect English plus one other language besides French; must have good family background and her morals must be above reproach; must have cosmopolitan outlook, must be able to discuss latest politics, art, plays and books. She must be pleasingly thin, between 21 and 30 years of age, not more than 5 ft. 6 in. tall and not less than 5 feet high. At end of three months training course, she must be a walking encyclopedia on air line routes, planes and aviation. Incidentally out of 350 who applied to take a recent three months course, only 14 were admitted."

America's Top-Quality Airplane Tire

It's here!..the kind of tire safety you've waited for



Now, for your airplane . . . the same greater tire safety, longer service and long-run tire economy that have made the General Tire famous with motorists!

For, just as General has always led in tire quality in the automotive field, General also pioneered America's Top-Quality Airplane Tire. One of the first truly finer aviation products to appear since the war—the General Airplane Tire—sets a top-standard of tire excellence that is well worth specifying on your new ship and is your best buy for replacements.

Aviation Division • THE GENERAL TIRE & RUBBER COMPANY • AKRON, O.

A large, detailed illustration showing a man in a dark jacket and light trousers standing next to a massive General Airplane Tire. He is gesturing towards a small biplane in the background. Two women are standing near the plane; one is leaning over it. The scene is set on a runway or airfield. In the bottom left corner, there is a circular logo with the text 'The GENERAL AIRPLANE TIRE'. In the bottom right corner, there is a small caption about the featured plane.

The GENERAL AIRPLANE TIRE

*Featured Plane is Globe-Swift
GC-1A, two-passenger
all-metal monoplane*

KNOWN 'ROUND THE WORLD FOR QUALITY AND SAFETY



UAL Visits Boeing—Four United Air Lines officials are shown inspecting the flight log of the Boeing XC-97, prototype of the Stratocruiser. UAL has indicated that it may buy several Stratocruisers for use between the mainland and Hawaii, and a UAL party visited the Boeing plant at Seattle this month. Shown left to right are Capt. W. D. Williams, UAL manager of regional flight operations; Capt. H. L. Baird, pilot representative of the airline; W. J. Addams, director of flight operations, and W. C. Mentzer, director of engineering.

Express Office—A San Francisco office of Air Express International Agency, Inc., has been opened at 510 Battery Street by v.p. Frank J. Eberle.

New PCA Uniforms

The new uniforms, to be worn by PCA ticket sales personnel are to be practical for wear "off duty" as well as behind the counter. Navy blue gabardine tailored suits are to be worn by both men and women. A Tunis blue vertical sleeve stripe will mark the girls' blouse while men will wear neckties of the same hue. The uniforms become suitable for social occasions by merely removing the PCA identification badge.

C&S Postpones Move To New Quarters In Chicago

Chicago & Southern, after leasing a five story building for its new headquarters in Chicago, has decided to stay on at Memphis until October 1, 1947. Reason for the delay is attributed to various building projects at Memphis and the inauguration of new domestic and Caribbean schedules. C&S now employs 1012 people at Memphis and a total of 1817 throughout the system.

Lockett Named Braniff VP

Thomas H. Lockett, former counselor of embassy at the U. S. Embassy, Bogota, Colombia, has resigned from the State Department to become vice president of the Latin American division of Braniff Airways. He will make his headquarters at the line's general offices, in Dallas.

Akron Fights Airlines' Move to Canton Field

Because four airlines have proposed to move their operations from Akron Municipal Airport to Canton Memorial Airport, the City of Akron has filed a formal complaint with the Civil Aeronautics Board asking for an investigation of the airline plans.

United, American, PCA and Eastern jointly notified Akron some time ago that when the new and larger Canton Memorial Airport is ready, they proposed to move over. More than one tempestuous conference was held in which Akron's airport manager, B. E. "Shorty" Fulton, a one-man army in himself and one of the pioneers of aviation, launched a vigorous battle to keep the airlines at Akron Municipal. Despite the long-time warm relationships between Fulton and the airline officials, the airlines stuck to their guns in deciding to move to Canton.

Akron Municipal has been in use since 1928 and the airlines during the interim period up to June 1, 1946, have put on and off some 220,000 passengers. The airport is one of the best located with respect to a downtown city, being but 4.8 miles and about 14 minutes away. Canton Memorial, while close enough to Canton, is 16.7 miles from downtown Akron and 34 minutes driving time.

In its complaint to CAB, Akron has figured out that the additional mileage required to drive to and from Canton Memorial will amount high in the hundreds of thousands of dollars per year for both passengers and cargo. In fact by 1960, Akron says the economic disadvantage to passengers will amount to \$2,748,900 a year.

While not mentioning the fact in its complaint, Akron officials have been free to admit that the new Canton Memorial airport is superior from the standpoint of layout, runways, etc., but maintain that Akron Municipal, when improved, will be entirely adequate for all equipment needs. When improvements are made, Akron Municipal is to have one runway of 7200 feet of which 6,000 will be paved, a new runway of 5800 feet, and extension of three other runways to 4,000, 4,100, and 4,900 feet respectively. Approaches are 40 to 1. The control tower operated by CAA was recently modernized and enlarged.

Referring to Canton Memorial, Shorty Fulton says: "Sure, Albuquerque and Wichita have wonderful airports, but those don't do Akron any good. What we want is an airport for Akron, not one for Canton that's 16 miles away."

Ticket Agencies—American Express Company and Thomas Cook & Sons have been authorized to issue tickets for Eastern Air Lines in a number of major cities served by the carrier. The new service will be available in 22 American Express agencies and five Cook offices.

Heads Medical Group

Dr. Kenneth E. Dowd, chief medical officer for Trans-Canada Air Lines and the Canadian National Railways, was elected president of the Airlines Medical Directors Association at a recent meeting of the organization in Chicago. He was also reelected to the Council of the Aero Medical Association of the United States and was delegated a Council representative to attend sessions of PICAQ dealing with medical problems.

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NY-London Service Resumed By BOAC

British Overseas Airways Corp., has reopened its transatlantic service, between London and New York, the first westbound plane leaving England, July 1. Eastbound service was inaugurated July 3. The Speedbird service employing Constellations, was begun with two round trips weekly. BOAC has announced plans to expand this to daily schedule basis within a few weeks.

● Pan American Airways cut previous flying time by 2 hrs., 45 mins., on the inaugural flight linking La Guaira, Venezuela and Miami. The 1414 mile flight was completed in 7 hrs., 30 mins. Four-engine craft are to be used for direct flights and local service, with twin-engine planes, will make stops at Camaguey, Port-au-Prince, Haiti, Ciudad Trujillo and Curacao.

● Pan American Airways inaugurated daily, non-stop, eight hour service between New York and San Juan, Puerto Rico, July 1. Four-engine equipment is to be used exclusively on the runs. Extension of the route to serve Rio and Buenos Aires is scheduled for later this month. The San Juan service is to be expanded to three flights daily and PAA expects to provide seven schedules per day over the route, by the end of this year. Stops on through flights between New York and Buenos Aires are to be made at San Juan, Port of Spain, Belem, Rio, Sao Paulo and Montevideo.

● TWA has announced a new weekly service linking the United States with southwestern Asia. Flights over the 7728 mile route will leave from Washington and New York, each Tuesday. Scheduled flying time will be 37 hours. The Asiatic terminal will be Dhahran, Saudi Arabia. TWA has also inaugurated a weekly commercial air service between the United States and Cairo, with flights leaving Washington, Sundays at 10 p. m.

● American Airlines adds two four-engine flights daily, effective July 15, from the New York area to the southwest. Regular stops are to be made at Washington enroute to and from Dallas and Fort Worth.

Lack of Law Slows Acquisition of Inland

Complexities brought about by the inadequacy of the Wyoming laws is delaying the dissolution of Inland Air Lines with the result that Western Air Lines has asked the Civil Aeronautics Board for an extension of the period in which to present a disposition plan for the government agency's approval.

Acquired June 1, 1944, Western has since been operating Inland as a subsidiary company. In its purchase, however, it was contemplated that Inland would be wholly merged with Western and the Inland corporation dissolved.

Western has succeeded in buying up 93 per cent of the Inland stock. The remaining seven per cent is unavailable. It is in estates which are in process of litigation or is held by stockholders who cannot be located or who have lost their certificates and so on.

Under the laws of most states all that is necessary to dissolve a purchased corporation is to sell the assets and distribute them, holding in trust the share of any missing stockholder. But, apparently because Wyoming has had very few incorporations, it lacks the laws necessary to provide for orderly dissolutions in cases similar to Western's purchase of Inland.

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1049	1.17	1.98	7.68	12.38	20.70c
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Rock

Dilworth

Moran

E. J. Rock, formerly of New York, has been named assistant controller for PCA. John P. Moran, Garden City, N. Y., also joins the treasury department of PCA as director of procurement, according to R. G. Lochiel, treasurer.

W. D. Dilworth has succeeded Nelson B. Fry as manager of traffic for United Air Lines. He was formerly superintendent of cargo tariffs and formulated a new air freight tariff for UAL.

Anthony J. Schoeph former UAL traffic manager at Long Beach has been named assistant district traffic and sales manager at Los Angeles, replacing Carl Murray, resigned. James B. Miller, formerly of the Navy replaces Schoeph. C. H. Bennett, former Oakland cargo sales chief has taken over a similar office at San Francisco, replacing Larry Avila, resigned. Shytle McMillion, who has been in charge of United ticket counter in New York has been named supervisor of cargo traffic at Chicago. He is succeeded by William A. Looney, formerly of the Marines.

Stuart B. Goldthorpe has been named supervisor of costs and budgets for PCA. Walter J. Short has been promoted to the office of supervisor of general accounting and Hugh J. Murtha has been appointed supervisor of taxes. All three are long time employees in the Washington offices of Capital Airlines-PCA.

George Ferreira has been named western regional director of American Airlines cargo sales, with headquarters at Los Angeles. He transfers from a cargo sales supervisor post at Detroit to succeed E. C. Miehle who has been appointed western manager of the AA contract air cargo division.

Dan C. Lynch has been temporarily assigned to Lineas Aereas Mexicanas, S. A., by United Air Lines. He will serve as administrative assistant to James Hibbard, operations manager, with headquarters in Mexico City.

Harry Flynn has been appointed manager of TWA's Airline's two downtown ticket offices in San Francisco. Rex Ward, chief passenger agent for TWA in San Francisco has been named assistant station manager at Albuquerque.

George P. Brown has been appointed regional sales manager in Boston for Northeast Airlines. During the war, he served with the ATC in Iceland and Labrador.

Harold E. Wright has been appointed as traffic representative for United Air Lines in Detroit. He was formerly with UAL at Chicago and Washington before serving with the Air Corps during the war.

T. Rieber has been elected a director of TACA Airways, according to Benjamin F. Pepper, chairman of TACA. Rieber is president of the Barber Asphalt Corporation and fills the vacancy left by Charles E. Mathews, resigned.



Lynch

Rieber

Wright



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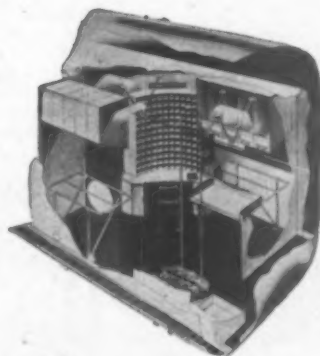
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Transport Notes

More Service To Catalina—United Air Lines has inaugurated a schedule of seven round trips daily between Los Angeles and Catalina Island. Twin-engine planes operate from Lockheed air terminal, Burbank, Los Angeles Municipal Airport and Long Beach Municipal Airport, making connections with flights from San Francisco and eastern points. The new Catalina airport will serve as the UAL terminal on the island.

Hawaiian Traffic Gain—Hawaiian Airlines carried 84,248 passengers during the first five months of 1946, an increase of 68.5% over the same period in 1945. Daily flight schedules now total 22 and rate reductions of from 10 to 20% went into effect July 10. Hawaiian Airlines handled its highest May business since its inception, when the 1946 figures disclosed that 17,502 passengers had been carried. Passengers in May, 1945 totalled 9,424.

Radio For Night Flying—Pan American Airways has installed radio communications at 16 points, along the east coast of South America and in the Brazil interior to facilitate night flying on the Rio de Janeiro and Buenos Aires route. Over-night stops were made formerly, along portions of the route not equipped for night operations. New schedules, calling for only three refueling stops between New York and Rio de Janeiro, are to go into effect this month.



New Braniff Insignia—Photo above shows Braniff Airways new insignia, Braniff International Airways, which the company adopted after being granted extensive Latin American routes by the Civil Aeronautics Board. Shown here with the first plane to roll out of the hangar with the new insignia is Braniff Hostess Norma Gregg.

International Passengers—Pan American Airways has reported carrying more passengers through the Miami international airport during the first half of 1946 than throughout all of 1945. PAA statistics reveal that 169,873 persons left or entered Miami on its planes, during the first five months of this year. An estimated 25,000 for the first three weeks of June raised the total to well past the record of 179,575 for entire 1945.

Passenger Increase—Chicago and Southern Airlines flew 81% more passenger revenue miles during the first six months of 1946 than for the corresponding period in 1945. Passenger totals for the 1946 period totalled 151,530 while 75,080 were carried between January 1 and June 30, 1945. Mileage for the 1946 period totals 62,160,000, against 34,270,378 miles during the first half of 1945.

Panagra Volume Up—A 25% increase in passenger travel for the first quarter of 1946 over the same period in 1945, has been announced by Pan American—Grace Airways. In the three month period, Panagra flew 22,827,957 passenger miles. The same operator carried 731,458 lbs. of express and freight and 99,251 lbs. of mail in its South American service, showing a marked increase over 1945 volume.

Increase Traffic—Two new all time records were set by Northwest Airlines during May, according to R. O. Bullwinkel, v.p.-traffic. Revenue passengers for the month totalled 53,909 while 350,919 lbs. of express were handled.

Athletes Take To Air—Eastern Air Lines recently completed a non-stop flight from Newark to Havana, carrying the Yale swim team, which participated in the aquatic events at Cuba's new palace of sports.

For Good Will—National Airlines sacrificed \$1,200 on each daily round trip between New York and Miami by installing 46 rather than 58 seats in the DC-4s, operated between the two points. G. T. Baker has marked it off as an investment in good will, stating that passenger comfort is appreciated by the public.

More Silverliners—Eastern Air Lines has taken delivery on the sixth of 20 DC-4s. The entire fleet is to be powered by Pratt & Whitney twin-Wasp engines.

Air Cargo Record—During the month of May, PCA reports the movement of nearly three-quarters of a million pounds of air cargo. The pounds-miles record approached a quarter-billion. The line has filed with CAB a tariff schedule calling for a 26½ cent ton mile rate and providing for 50-mile blocks for computing charges. Rates are now figured for 100-mile blocks.

KLM Opens L. A. Office—KLM, the Royal Dutch Airline, has opened a traffic and publicity office in the Hollywood Roosevelt Hotel, Los Angeles. J. Van Braam, who formerly operated a travel bureau in Tangiers is in charge. He joined KLM after 3½ years in a Japanese prison camp. The office is the first of its kind to be established in Los Angeles by a foreign airline.

Reduce Freight Rate—A newly reduced air freight rate of \$16.30 per 100 lbs. on general commodities in 3,000-lb. lots has been placed in effect by Eastern Air Lines between New York City and Houston, Tex. The tariff represents a sharp cut from the air express rate of \$46.05 per 100 lbs. on general commodities.

Passenger Totals Grow—Northeast Airlines passenger totals for June exceeded those of June, 1945, by 169%, according to Paul F. Collins, president. June totals of 48,010 bettered May figures by 55% and set a new high for business by the company. Recent additions to the NEA fleet and opening of service to Cape Cod and Island points are considered as important factors in the rapidly-growing passenger totals, Collins said.

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Wiggins Airways Awarded New England Feeder Lines

Northeast, EAL, Colonial Receive Additional Stops

E. W. WIGGINS AIRWAYS, Inc., a New England fixed base operator with facilities at Norwood, Mass., and at the East Boston Airport, became the seventh regional feederline to be certificated by the Civil Aeronautics Board in the current series of area cases as the Board announced its decision in the New England Case (Docket 399 et al.) recently. Route 79 awarded by CAB to Wiggins, involves three separate segments linking Albany and Boston and a fourth touching cities in Connecticut, Rhode Island and Southern Massachusetts.

The decision also carried route awards giving Eastern Air Lines, Colonial Airlines and Northeast Airlines numerous new and important intermediate points to round out their existing New England services.

The four segments comprising Wiggins' Route 79 are (a) Albany to Boston via Bennington, Vt., Keene, N. H., Manchester, N. H., and Lawrence, Mass.; (b) Albany to Boston via Adams-North Adams, Greenfield, Orange, Fitchburg and Lowell, Mass.; (c) Albany to Boston via Pittsfield, Northampton, Springfield, Southbridge, Worcester and Framingham, Mass.; and (d) Springfield to Boston via Hartford and Willimantic, Conn., Providence, R. I., and Taunton and Brockton, Mass. The certificate was made valid for a three-year period, commencing six months from its effective date (June 13, 1946) or upon the date Wiggins is able to begin serving the route, whichever date is sooner. Wiggins is required to serve each intermediate point on every trip over each of the four segments, unless the Board specifically provides for an omission. Reports showing the origin, destination and volume of traffic on the line's routes must also be submitted for the first three months of operations and for each February and August thereafter.

The Board stated that it had selected Wiggins over All-American Aviation and Hyman Flying Service, the two closest contenders, because Wiggins had accumulated long experience in serving the needs of New England through its extensive fixed base operations, and because its proposal for New England local air service was "as thorough and realistic as was presented by any applicant." The company has been engaged in flight instruction, charter service and fixed base operations in New England since 1932. Joseph Garside is president of the corporation; Harold E. Shaw executive vice-president; Charles S. Cowan and Charles H. Scott, vice-presidents; and Miriam Vanderslice, clerk. E. W. Wiggins, incorporator of the company and formerly its treasurer, died shortly prior to the hearing in the case. Exhibits presented by Wiggins at the hearing indicated that break-even mail pay rate of 34 cents per mile would be required to support its proposed 1400-mile operation.

Northeast Airlines received the greatest number of new stops in New England granted to any existing airline on the basis of CAB's finding that its present

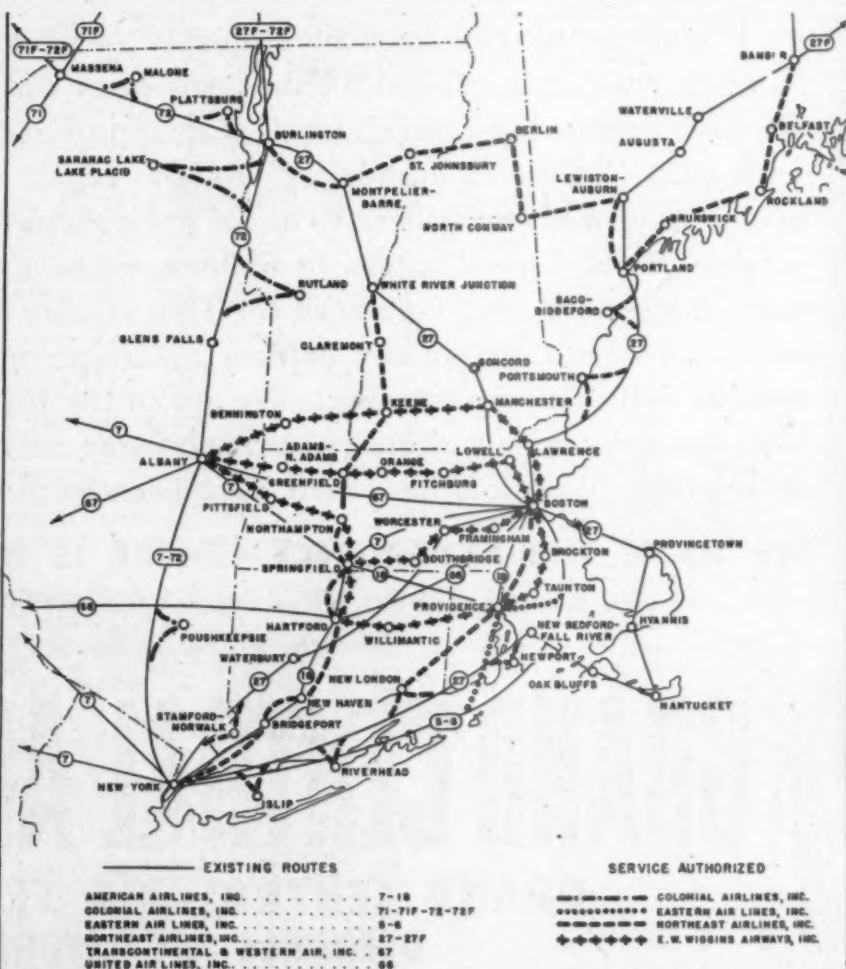
route structure, geared primarily to the local service needs of the area, would lend itself most flexibly to the addition of needed new local services. Northeast's Route 27 was amended by the Board (1) to include Stamford-Norwalk, Conn., between New York-Newark and Waterbury, Conn.; (2) to include Portsmouth, N. H., and Saco-Biddeford, Me., as intermediate points between Lawrence, Mass., and Portland, Me.; (3) to include Brunswick, Rockland and Belfast, Me., as intermediate points between Portland and Bangor; (4) to include Islip and Riverhead, Long Island, N. Y., New London, Conn., and Newport, R. I., as intermediate points between New York-Newark and New Bedford-Fall River, Mass.; (5) to authorize service beyond New London, Conn., to Providence and Boston; (5) to authorize service between New York-Newark, Bridgeport, New Haven and Hartford, Conn., Springfield, Northampton and Greenfield, Mass., Keene and Claremont,

N. H., and White River Junction, Vt.; and (6) to authorize service between Portland and Lewiston-Auburn, Me., North Conway, N. H. (between June 1 and Sept. 30 each year), Berlin, N. H., and St. Johnsbury, Montpelier-Barre, and Burlington, Vt.

To Northeast's amended certificate the Board attached the restrictions that service to Brunswick, Rockland or Belfast, Me., may not be given on the same flights with Lewiston-Auburn, Augusta or Waterville, Me., and that all flights operating over the so-called Connecticut River Valley route between New York-Newark and White River Junction must stop at least at two of the intermediate points listed.

Eastern Air Lines was authorized to serve Providence, R. I., as an intermediate point on its Routes 5 and 6 subject to the condition that flights serving the Rhode Island capital must originate or terminate south of Richmond, Va., or west of Charleston, W. Va., and must also serve Boston.

Colonial Airlines received the right to add Poughkeepsie, Saranac Lake-Lake Placid, Plattsburgh and Malone, N. Y., and Rutland, Vt., on its New York-Ottawa-Montreal Route 72-72F, and the Board removed the seasonal service restriction at Glens Falls, N. Y., Route 72.



New England Services—Map shows new feeder routes granted by CAB to E. W. Wiggins Airways, Inc., and new routes and stops awarded Colonial Airlines, Eastern Air Lines and Northeast Airlines by CAB in the New England case.



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CAB Activities

By Daniel S. Wentz II

The Hawaiian Case and New England Case decisions, reported in other pages of this issue, were the highlights of CAB's activities for the past two weeks, but the heavy flow of less important actions showed no signs of diminishing. New problems were ahead for the Board as pressure from non-scheduled aviation interests grew stronger and more insistent, but final action on the non-scheduled problem still seemed several months in the future.

Reopened West Coast Case Asked—Western Air Lines and American Airlines both petitioned the Board to reopen its West Coast Case, WAL with respect to the San Francisco-Seattle service it was denied, and American for reconsideration of CAB's refusal to permit it to enter San Francisco from Los Angeles. Western maintained that the Board had erred in its finding that a competitive Los Angeles-Seattle route was not required and that such a route would mean serious financial damage to United Air Lines. The petition also stressed that such a route would form an highly important adjunct to Western's newly authorized Los Angeles-Mexico City service. American's petition claimed that the Board's refusal to permit it to operate between Los Angeles and San Francisco shut the latter city off from direct service to many of American Airlines cities and constituted "discrimination" against San Francisco, which is presently served by three trunk-line carriers only two of which are transcontinentals.

Texas-Oklahoma Oral Argument—Representatives of 32 airlines, some existing only on paper, others in actual fact, jammed the Civil Aeronautics Board's cramped hearing room for a week-long oral argument in the Texas-Oklahoma local and trunk line service case. The argument was the first presided over by the new Board Chairman James M. Landis. The case, one of the largest in the Board's current area case series, went

up for decision after five days of presentations.

Route Consolidations Favored—CAB Examiner Herbert K. Bryan issued a report recommending that Braniff Airways' Routes 9, 15 and 50 be consolidated into a single route and that Chicago and Southern's Routes 8 and 53 be similarly consolidated. In the case of the Braniff consolidation, the examiner suggested a restriction to prevent the airline from operating non-stop or one-stop services between Tulsa and Denver in direct competition with Continental Air Lines. Chicago and Southern opposed consolidation for Braniff which would permit a Chicago-Houston non-stop, and Braniff likewise opposed a similar privilege for C&S if it were not given the same authorization. Examiner Bryan determined that because Houston had been named an international terminal on the Latin American routes of both Braniff and C&S, each line should be permitted to serve it on non-stop flights from Chicago.

UAL Asks Non-Stops—At a brief hearing before CAB Examiner James S. Keith, United Air Lines made a case for its proposed non-stop operations between Detroit and New York and between Allentown, Pa., and New York. Harold Cray, UAL's vice-president-traffic, and Andrew de Voursney, UAL research official, both sponsored exhibits showing that the non-stop would permit routing a greater number of transcontinental non-and one-stop schedules through Detroit. C. W. Jacob, secretary of American Airlines, testified in opposition to the non-stop proposals that existing traffic between New York and Detroit was not sufficient to support a third non-stop operator.

TWA-Italian Deal—A prehearing conference on Transcontinental & Western Air's agreement with the Italian Government to assist in the operation of internal Italian airline services was scheduled for July 15. Examiner James S. Keith has been assigned to the case. The deal must be approved by the Board before TWA can legally participate in the operation of the Italian company.

Sale of TWA Route 38 Opposed by Examiner

Arizona Airways will not be permitted to purchase the certificate of convenience and necessity for Route 38 from Transcontinental & Western Air if the Civil Aeronautics Board upholds recommendations made by one of its examiners, J. Earl Cox, last fortnight.

Cox pointed out in his report that the Route 38 Purchase Case was unusual because it represented the first occasion since the Board was established in which a certificated carrier has proposed to sell one of its route certificates to a company which is not an air carrier in exchange for a substantial interest in the new company. No physical or tangible assets are involved in the deal as originally proposed.

Cox concluded that such a transfer would be contrary to the public interest because: (1) the purchase price—\$100,000—was unduly high; (2) TWA could operate the route itself more efficiently and at less cost to the government and to the traveling public; (3) the transfer of the certificate would create a "need" carrier operating a local service under a permanent certificate which would be contrary to the Board's policy of certifying feeder lines only temporarily; and (4) the transfer would set a precedent "in permitting an established carrier to divest itself of the liability of a marginal route through the sale of the certificate to a new carrier in which the divesting carrier would expect to retain a substantial interest."

Route 38, described in Cox' report as a "marginal route", links Phoenix, Ariz., and Las Vegas, Nev., via Prescott and Kingman, Ariz., and Boulder City, Nev.

Correction

In the June 15 issue of AMERICAN AVIATION a net loss of \$1,492,972 for Transcontinental & Western Air during the first quarter of 1946 was inadvertently attributed to a contingent federal income tax credit. The tax credit was not responsible for the loss, but rather reduced the net loss from \$2,403,483 to \$1,492,972.

SUMMARY OF U. S. DOMESTIC AIR TRANSPORT OPERATIONS FOR April, 1946
Compiled by American Aviation Publications from Official C.A.B. Data.

TRAFFIC
STATISTICS

AIRLINES	REVENUE	PASSENGERS	REVENUE	PASSENGERS	AVAILABLE	LOAD FACTOR	MAIL	EXPRESS	FREIGHT	TOTAL	AVAILABLE	% AVAILABLE	REVENUE	SCHEDULED	% SCHEDULED	TOTAL
					SEAT MILES		TON-MILES	TON-MILES	TON-MILES	TON-MILES	TON-MILES	FLOWN	FLANE-MILES	MILES	MILES	MILES
All American	174,923	92,901,964	107,133,857	86.3%	567,447	359,752	241,340	10,428,136	14,454,900	17,627	20.8%	148,710	149,664	99.3%	12	
American	36,971	15,943,032	17,129,125	90.7%	52,668	35,028	19,506	1,675,808	1,834,418	19,067	74.0%	4,611,444	4,715,275	99.3%	152	
Braniff	3,617	225,301	389,467	62.7%	200	372	118	19,067	39,996	51.1%	839,709	824,619	99.4%	21		
Caribbean	27,783	11,357,075	13,456,187	84.3%	29,630	33,331	118	1,208,239	1,451,100	382,885	51.1%	28,589	30,888	92.3%	4	
C & S	10,823	3,280,871	5,199,807	63.1%	8,124	3,016	1,167	209,690	270,023	61.1%	247,870	270,023	99.8%	19		
Colonial	16,395	5,780,478	8,977,301	64.3%	11,266	4,016	1,167	209,690	270,023	61.1%	829,474	830,430	99.6%	13		
Continental	39,211	16,641,996	20,185,034	82.4%	63,502	33,268	1,167	1,032,430	1,429,474	66.8%	827,963	828,930	99.6%	25		
Delta	17,211	2,485,532	2,833,104	87.7%	2,271	9,485	24,961	1,720,945	2,774,997	71.7%	132,210	179,080	99.2%	5		
Eastern	6,162	1,636,408	2,723,696	60.0%	3,538	1,212	1,212	253,169	394,904	59.4%	185,921	170,900	97.0%	8		
Hawaiian	21,283	6,189,606	8,103,226	76.3%	16,870	10,204	1,212	680,518	896,999	78.0%	409,706	411,724	99.5%	11		
Inland	21,283	6,189,606	8,103,226	76.3%	16,870	10,204	1,212	680,518	896,999	78.0%	409,706	411,724	99.5%	11		
National	26,211	5,293,996	6,373,416	83.0%	5,894	4,292	1,212	2,510,235	2,510,235	73.1%	767,832	770,674	99.1%	18		
Northwest	49,425	27,912,130	31,688,996	88.0%	152,901	80,528	1,212	451,940	631,939	80.1%	265,599	290,760	99.4%	9		
Southwest	105,366	31,504,559	39,620,471	79.9%	49,857	74,575	1,212	2,868,851	3,779,517	64.1%	1,495,581	1,441,740	99.1%	29		
TWA	1,608	471,520	728,289	64.7%	2,088	595	1,212	2,972,541	4,686,242	62.0%	1,481,612	1,479,615	99.1%	51		
Pioneer (Resair)	85,577	71,095,988	80,807,749	87.9%	664,952	344,341	1,212	44,149	72,828	79.7%	80,921	81,960	98.9%	6		
United	140,621	83,890,788	97,636,031	85.8%	818,268	430,495	1,212	9,716,070	13,946,722	70.9%	3,529,857	3,408,973	99.9%	87		
Western	34,952	13,130,213	16,268,271	80.7%	42,919	25,609	1,212	1,397,080	1,886,349	75.1%	6,117,519	6,403,135	99.0%	100		
TOTALS	822,007	403,405,557	475,771,961	84.8%	2,596,557	1,475,952	699,684	44,469,080	61,931,232	73.6%	23,038,983	21,113,515	96.9%	608		
* Includes rented and owned transports																

* Includes rented and owned transports

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5 Airlines Present Cases in Hearings on Boston-New Orleans

The Civil Aeronautics Board's Boston-New York-Atlanta-New Orleans Case hearings before Examiners Ralph L. Wiser and Lawrence J. Koster picked up momentum as they moved into their fifth week last week. There was every indication that the case, said to be the most important trunkline proceeding to be heard since the so-called Seaboard Case, would be concluded by the time this issue went to press.

Delta Air Lines, whose presentation was sparked by President C. E. Woolman and Vice President-Traffic Leigh C. Parker, produced a novel "Main Street of America" theory around which it built its case. A line drawn from Boston through New York-Newark, Philadelphia, Wilmington, and Baltimore to Washington, Delta maintained, represented the "Main Street" of the U. S., and the company's application was designed to connect the cities on Delta's existing system with the business, industrial, financial and governmental interests clustered in the "Main Street" cities. During his testimony, Woolman charged that Eastern Air Lines has been attempting to block new competitive services linking southern cities with Washington and New York.

Colonial Airlines' case for a Boston-New Orleans route pivoted around the wide variety of connections the company could offer between New Orleans and Canada, New Orleans and Bermuda, Boston and Bermuda and Canada and Bermuda. Edward S. Ridley, Colonial vice president, maintained that the Board's recent elevation of New Orleans to the status of a highly important international gateway made even more pressing its need for adequate connections to New England and Canadian points already served by Colonial.

Plans for a "day-coach" airline, carrying passengers at a fare of three and one-half cents per mile on a proposed route between Washington and New Orleans, were presented by Samuel J. Solomon, president of Atlantic Airlines. Claiming that limousine fares to and from airports raised airline fares from 4.5 to nearly 5.7 cents, Solomon, formerly president of Northeast Airlines, said that his new company proposed to include bus transportation to and from airports in the price of the customer's ticket. He stated that his company planned to open service with DC-3 equipment fitted to seat 28 passengers instead of the conventional 21, with in-flight and other services shorn to an absolute minimum. He offered to operate the line without mail pay.

American Airlines' proposal for an extension of its Route 22 from Nashville to New Orleans via Meridian, Miss., would give new one-carrier service to 28 cities now on AAL's routes, according to the testimony of the company's secretary, C. W. Jacob, who emphasized that American was the only applicant in the proceeding which could give New Orleans service to European points.

U. S. Airlines, a Florida contract carrier headed by Harry R. Playford, well known in aviation circles, told Examiner Wiser that the company wanted a certificate of convenience and necessity because it felt that air cargo could be most

Merrill Armour Appointed To Fill New Air Board Office

The Civil Aeronautics Board has announced the appointment of Merrill Armour to the newly created position of Assistant General Counsel-Safety. Armour has served as Chief of the Safety Section of the General Counsel's office since 1942 and is a licensed pilot.



Armour

Creation of the new office, as reported by CAB, was necessary because of the increase of duties and responsibilities of hearing and reviewing disciplinary cases involving enforcement of safety regulations of the Civil Aeronautics Act.

Northwest-REA Freight Agreement Investigated

An investigation of the air freight agreement signed between Northwest Airlines and the Railway Express Agency, Inc., had been opened by the Civil Aeronautics Board acting on its own initiative.

The Board order opening the proceeding states that the agreement relating to the operation of an air freight business may be adverse to the public interest and in violation of the Civil Aeronautics Act. This statement defines the issues to be determined by the investigatory proceeding, which will involve hearings before one of CAB's examiners. The order also provides that the investigation is to decide what further action, if any, may be required.

Early in June, the Board announced that it could neither approve nor disapprove the air freight agreement as originally filed, and most observers believed that this statement indicated that a formal investigation of the agreement, and perhaps of REA's legal status under the Civil Aeronautics Act as well, might result.

The agreement provides for an air freight service as distinct from the air express operations REA now conducts under a CAB exemption order.

thoroughly developed only by an operator who could function as a scheduled common carrier. U. S. Airlines' application asked for a certificate to authorize scheduled operations between the Louisiana Airfreight area and the Northeast Airfreight area, the former being a 100-mile-wide strip between New Orleans and Grove Hill, Clark County, Alabama; the latter a 100-mile band extending from Norfolk, Va., to Portland, Maine.

The company, according to its president, is now operating 14 C-47s in scheduled service under contract to some 24 clients, carefully avoiding the acceptance of goods offered by the general public. Its experience, Playford related, showed that shippers demanded scheduled service rather than non-scheduled and pointed up the carrier's need for a CAB certificate. On cross-examination, he admitted that U. S. Airlines' present operations were losing \$40,000 to \$50,000 per month.

3 Lines Ask Reopened Latin American Case; Court Appeal Likely

Pan American Airways, Eastern Air Lines and the Waterman Steamship Corporation, in petitions filed during the past two weeks, have all expressed dissatisfaction with the Civil Aeronautics Board's important Latin American decision and have asked that the case be reopened for further consideration.

Each of the three companies' petitions listed specific items of disagreement, and at least one—Waterman's—was apparently filed to lay the groundwork for appealing the decision, in which President Harry S. Truman played a major role, to a U. S. Court of Appeals.

Eastern's petition claimed that the main result of the decision was to place its large domestic system east of the Mississippi behind an "international barricade at Miami," requiring traffic generated at EAL's cities to make two or three carrier connections if it wanted to reach Latin America. The petition asked that the Board reconsider its denial of Eastern's application for a Miami-Canal Zone route, and pointed out that such a link would enable it to carry through to Balboa the Latin American traffic in which it has participated over its domestic system for a number of years.

Eastern charged that "The decision grants to Eastern a mere pittance of new route authorizations—in net effect only 1,500 additional miles—while granting to the Pan American system monopoly 4,000 additional miles, and to carriers which have had no part, or only a minor part, in the development of Latin American traffic, lengthy foreign extensions, such as 8,000 additional miles in the case of Braniff Airways, Inc., a remote western regional carrier, which can never provide more than sham competition for the Pan American Airways monopoly, and 4,000 additional miles in the case of Chicago and Southern Air Lines, Inc., a small middle western carrier, which has never had a substantial participation in Latin American transportation."

The Waterman petition was specifically directed against the Board's grant of a New Orleans-San Juan route to Chicago and Southern, which the shipping company branded as "obviously discriminatory." Waterman, the petition said, could begin flying the route in July while C&S' service could not be opened until late this year. Bon Geaslin, vice president and general counsel of Waterman, told AMERICAN AVIATION that if his petition were not granted by CAB, he planned to file an appeal with the United States Circuit Court for the Fifth Circuit (Louisiana, Alabama, etc.). Waterman's home office is in Mobile, Ala.

Pan American's main objections, its petition said, were directed primarily to the Board's failure to include Curacao, N.W.I., as an intermediate point in its Miami-La Guaira (Venezuela) route; and Havana on its Miami-Kingston-Barranquilla service; and to its failure to certify PAA as well as Western Air Lines for a Los Angeles-Mexico City route.

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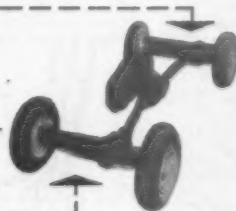
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CAB Proceedings

(A Summary of Applications Filed, Orders Issued, and Future Actions of the Civil Aeronautics Board.)

Applications:

American Airlines, Inc., for an amendment to its certificate for Route 4 to remove the restriction against service to San Diego, Calif., except on flights originating or terminating at points east of El Paso, Texas. (Docket 2342).

G. I. Carlisle, d.b.s. Jefferson Airlines, Beaumont, Texas, for a certificate authorizing mail, passenger and property service over 1899 miles of routes between Beaumont and Harlingen, Tex., between Beaumont and Oklahoma City, and over a circle route based in Beaumont, all via various intermediate points. (Docket 2353).

Delta Air Lines, Inc., for an amendment to its certificate for Route 54 extending that route from Cincinnati, Ohio, to Washington, via Portsmouth, Ohio, Huntington and Charleston, W. Va., and Charlottesville, Va.; from Cincinnati to Norfolk, Va., via Portsmouth, Huntington, Charleston, Charlottesville, and from Cincinnati to Washington via Pittsburgh, Pa. (Docket 2349).

Eastern Air Lines, for an exemption order authorizing non-stop service between Atlanta and Tampa on Route 40. (Docket 2347).

Eastern Air Lines, Inc., for a 336-mile extension of its Route 6 from Washington to Detroit; a 643-mile extension of its Route 6 from Washington to Chicago; a 42-mile extension of its Route 47 from Charleston, W. Va., to Chicago, and for a 440-mile extension of its Route 47 from Charleston to Chicago, all via various intermediate points. (Docket 2350).

Florida Airways, Inc. (Thomas E. Gordon), Orlando, Florida, for an amendment to its certificate for Route 75 to include Daytona Beach as an intermediate point between Sanford-DeLand and Palatka. (Docket 2352).

KLM-Royal Dutch Air Lines, 521 Fifth Avenue, New York, 17, N. Y., for an amendment to the carrier's foreign air carrier permit authorizing it to serve Ciudad Trujillo, D. R., as an additional

intermediate point between Willemstad, Curacao, N. W. I., and Miami. (Docket 2348).

Maine Air Cargo Express Inc., Rockland Municipal Airport, Owls Head, Maine, for a permanent or temporary certificate authorizing scheduled mail, passenger and property service over a 166-mile route between Boston and Rockland, Me., via Brunswick and Biddeford, Me. (Docket 2341).

Mason-Dixon Airlines, Inc., c/o M. C. Wedge, 532 De Leon Drive, Miami Springs, Fla., for a permanent certificate authorizing mail, passenger and property service over a 877-mile route between Norfolk and Detroit via Richmond and Roanoke, Va., Charleston and Huntington, W. Va., and Columbus and Toledo, Ohio. (Docket 2354).

National Airlines, Inc., for an amendment to its certificate for Route 31 to extend that route from Norfolk, Va., to Chicago via Washington, Pittsburgh, Cleveland and Detroit, or, in the alternative, for a new route between those points on a permanent or temporary basis. (Docket 2351).

Pacific Air Lines, 7000 Hollywood Boulevard, Los Angeles, 28, Calif., for a permanent or temporary certificate authorizing scheduled mail, passenger and property service between Los Angeles and New Orleans via El Centro, Calif., Nogales, Ariz., El Paso, San Angelo and Waco, Texas, and Baton Rouge, La. (Docket 2339).

Pacific Air Lines, 7000 Hollywood Boulevard, Los Angeles, 28, Calif., for a permanent or temporary certificate authorizing scheduled mail, passenger and property service between San Francisco and New Orleans via Stockton, Fresno and Visalia, Calif., Las Vegas, Nev., Grand Canyon, Ariz., Santa Fe and Los Vegas, N. M., Lubbock, Dallas and Fort Worth, Texas, and Alexandria, La. (Docket 2338).

Peruvian International Airways, Lima, Peru, for a permanent or temporary foreign air carrier permit authorizing scheduled and non-scheduled mail, passenger and property service between Lima and Montreal via a point in Panama, Havana, and New York City. (Docket 2334).

Princeton Airport, Inc., Princeton, W. Va., for a certificate authorizing air transportation of persons and property over 236 miles of routes linking Princeton and Charleston, W. Va., Princeton and Tri City Airport (Bristol Va./Tenn., Kingsport and Johnson City, Tenn.); and Princeton and Roanoke, Va. (Docket 2336).

Southern Arizona Airlines, Inc., P. O. Box 1181, Tucson, Ariz., for a certificate authorizing scheduled mail, passenger and property service by helicopter over 3009 miles of routes between Tucson and Phoenix, Tucson and Douglas, Phoenix and Yuma, Phoenix and Boulder Dam, Tucson and Morenci, Phoenix and Williams, and between Williams and Grand Canyon, Ariz., all via numerous intermediate points. (Docket 2335).

Transcontinental & Western Air, Inc., for a 279-mile extension of its Route 37 from the present intermediate point Fresno, Calif., to a new terminal point at Reno, Nev., and for the addition of Bishop and Truckee, Calif., as new intermediate points. (Docket 2345).

Transcontinental & Western Air, Inc., for approval of an agreement between TWA and the Government of Italy with respect to the operation of local Italian air services in Italy. (Docket 2337).

Wells Fargo Carloading Company, 65 Broadway, New York, N. Y., for a certificate of convenience and necessity authorizing the applicant to operate as an air freight forwarder over fixed or irregular routes of air carriers. (Docket 2343).

Wells Fargo Carloading Company, 65 Broadway, New York, N. Y., for an exemption order authorizing the company to operate as an air freight forwarder pending decision on its application for a certificate of convenience and necessity in Docket 2343. (Docket 2344).

Calendar:

July 15—Prehearing conference on the Transcontinental & Western Air-Italian Agreement. (Docket 2337). 10 a. m., e.s.f., Foyer, Commerce Department Auditorium, Examiner James S. Keith.

July 22—Rebuttal exhibits in the Arizona-New Mexico Case due. (Docket 968 et al.) Postponed from July 5.

July 29—Briefs due in the Southeastern States Case (Docket 501 et al.) Postponed from July 16.

Aug. 1—Briefs due in the Braniff Airways-C&S Route Consolidation Case. (Docket 1154 et al.)

Aug. 12—Hearing in the Arizona-New Mexico Case. (Docket 968 et al.) Postponed from July 22.

Sept. 9—Hearing on applications proposing mail and property service by helicopter in the Los Angeles metropolitan area. (Docket 896 et al.) Examiner Ferdinand D. Moran. Postponed from July 10 at the request of the Post Office Department.

Orders:

4835—Authorizing Transcontinental & Western Air to serve Lydda, Palestine, Basra, Iraq, and Bombay, India, through the use of Lydda Airport, Margil Airport and Santa Cruz Airport respectively.

4836—Permitting Transcontinental & Western Air to serve Dhahran, Saudi Arabia, through the use of Dhahran Airport.

4837—Authorizing Braniff Airways and American Airlines to intervene in the Esair Certificate Amendment Case. (Docket 2057).

4838—Approving an agreement between United Air Lines and Catalina Air Transport providing for the operation by UAL of service authorized under Catalina's certificate, and approving a second agreement providing for the commercial use by United of the Catalina Airport on Santa Catalina Island, Calif. (Dockets 2307 and 2251).

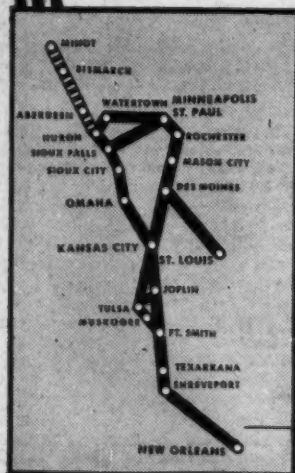
4840—Issuing the Board's opinion in the Investigation of Non-Scheduled Air Services (Docket 1501) and promulgating Amendment No. 2 of Section 292.1 of CAB's Economic Regulations. (Non-scheduled Exemption Order.)

4841—Finding the air carrier operations of Page Airways, Inc., to have been in violation of the Civil Aeronautics Act and ordering Page to cease and desist from engaging in air transportation unless it obtains a certificate of convenience and necessity or operates within the limits of the Non-scheduled Exemption Order. (Economic Regulation 292.1). (Docket 1896).

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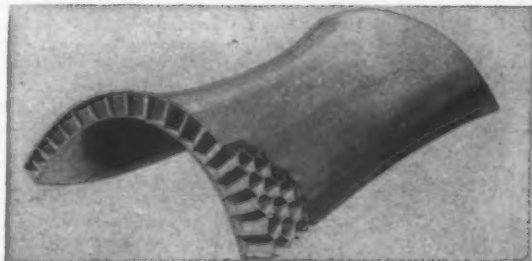


Tough Stuff! Marvinol, new plastic fabric, provides colorful, scuff-proof, washable interior finish for new Martin planes. Other types of Marvinol may supplant rubber in many fields.



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Pictured on this page are just a few of the many new Martin developments that will boost performance and production of Martin airliners. Scores of other developments, individually minor but collectively important, will cut costs and increase efficiency of the new Martin airliners.

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In Front! Forward entrance door, first developed by Martin, is a typical example of how Martin pioneering keeps Martin aircraft well ahead of the field at all times.



Photo-Finish! Smart interior of Martin airliners may be finished off with photo-murals, thanks to Martin Multi-Mulsion—a photographic emulsion developed by Martin.



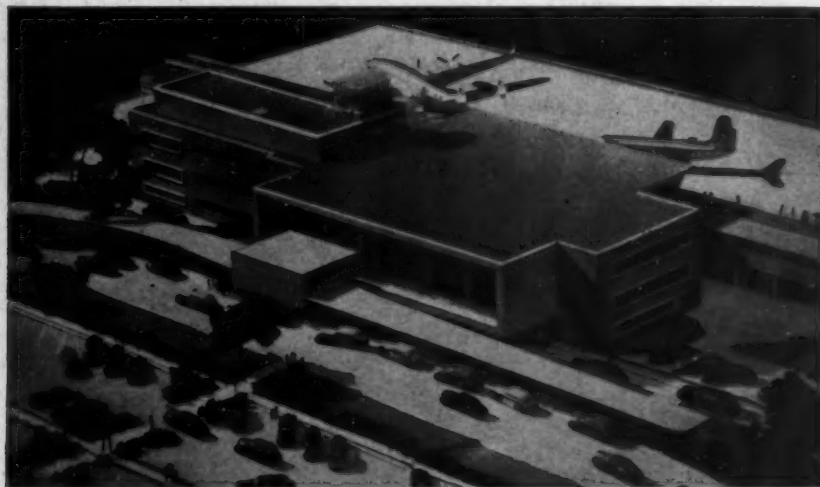
Colossal Camera! Photo-lifting process, which saves time and money for purchasers of Martin aircraft, was developed by Martin.

Navy Releases 67 Air Bases To Civilian Use

The Senate Naval Affairs Committee has authorized the Navy Department to transfer 67 air bases and air stations to the WAA for disposal to state and local governments, interested in operating them for commercial purposes. A large majority of the surplus fields are situated in border states. Disposition of the bases will be made, subject to restrictions that they will be used and maintained in a serviceable condition, as public airfields, with the government reserving the privilege to take over full and unrestricted control, in event of a national emergency.

Names of the bases, by states, to be declared surplus are: Arkansas: Amagon, Beech Grove, Biggers, Bono, Elgin, Milltown, Newport. California: Eureka, Hollister, Holtville, Lompoc, Del Mar, Santa Barbara, Vernalis, Watsonville. Connecticut: Groton (Trumbull). Florida: Bayou, Bulow (Bunel), Daytona Beach, Deland, Herlong, Jacksonville Municipal No. 1, Malabar, Mayport, Melbourne, New Smyrna Beach, Ocala, Paxon, Roseland, Sanford, Spruce Creek, St. Augustine, Tomoka, Valparaiso, West Prospect Road. Indiana: Field No. 6 in Cass County, Field No. 8, Miami. Iowa: Fields No. 07815 and 34909, Ottumwa. Maine: Lewiston-Auburn, Sanford and Rockland. Massachusetts: Mansfield and Martha's Vineyard. Michigan: Custer. New Jersey: Wildwood and Mercer County, Trenton. North Carolina: Harveys Neck, Kinston, Manteo. Oklahoma: Clinton, Delhi, Goldsby, Moore, Noble, Norman, Shawnee. Oregon: Klamath Falls. North Carolina: Beaufort County. Virginia: Creeds, Franklin, Pungo. Washington: Quilley.

Proof that the Mansfield, Ohio, Class V airport is capable of handling all current types of production aircraft, is to be demonstrated during the official dedication, July 20-21. Sponsors of the dedication event have announced that the B-19 and the P-50 are among the various military types to be landed on the 5600 ft. runways. Mansfield municipal airport, highest in the state, 1250 ft., will be operated under the management of J. R. Harrington.



New Terminal Design—Pictured above is a three-level terminal design prepared by Giffels & Vallet, Detroit airport engineers. This picture provides a general overall illustration of a terminal building with unloading ramp, parking areas and passenger concourse suitable for operations of six to eight airlines including all attendant necessary facilities. The basic concept of this design, Giffels & Vallet engineers assert, is not restricted to any size of structure or stage of expansion. It provides expandability with minimum obsolescence, simplicity of design and flexibility of floor space use, easy circulation and handling of passengers, baggage and cargo without congestion or confusion, efficiency in operation and revenue producing features developed to the utmost, they state.

\$5 Million Terminal for NY

New York City has signed an agreement with the recently-organized Manhattan Air Terminals, Inc., for the construction of a five million dollar air terminal extending west from First Avenue, between 37th and 38th Streets, near Queens midtown tunnel. Henry Hill, formerly of American Airlines, now head of the terminal organization, said building will begin next fall and occupancy will be available a year later.

Airport Zoning Plan Suggests Attractive And Practical Bases

A zoning plan for airports in agricultural and residential areas, that is designed to overcome present objections by property owners, is being introduced by the aviation department of the Kansas City Chamber of Commerce. The proposed plan would require that the airport owner keep abreast of vicinity zoning regulations and maintain his physical property on a par with the construction and attractiveness of surrounding real estate.

Property owners in the vicinity of proposed airports have voiced three main objections, noise nuisance, danger of falling airplanes and the lowering of real estate values. The noise problem may be overcome by aircraft engineers, the aviation officials have pointed out. Studies made by the CAA have revealed that the possibility of falling aircraft is so small that fear is wholly unwarranted. The third objection, the so-called reduction of real estate values is covered in the plan which would make the airport a practical establishment, providing an attractive recreational center for the pleasure and entertainment of the community.

S. C. Aero Commission To Incorporate Fields Into Statewide System

The South Carolina Aeronautics Commission has drawn up a lease agreement which it is presenting to cities and counties of the state as the major part of the commission's program of developing a state system of airports. Dexter C. Martin, state director of aeronautics at Columbia, believes that all but two or three of the larger municipal airports will come into the state system.

Martin's goal is a state system of airports somewhat comparable to the state's system of highways.

Under the lease arrangement, the municipality or county agrees to lease its airport to the aeronautics commission for set periods of time.

In the case of construction or improvement of the airport, the commission will submit plans to the local government for approval, and will assume all responsibility for the work including determining of specifications, letting of all contracts, and paying all costs incurred in completing the construction or improvement. But the local government furnishes at no cost to the commission any land needed for the construction or improvement.

The commission will perform all maintenance and will have a maintenance man at each airport. The customary title of "airport manager" apparently is being eliminated, since policy matters will be determined at the state commission's offices. The commission assumes all costs for public utilities services except those used by persons or firms operating on the airport.

A zoning clause in the agreement protects the airport from encroachments at the customary 1 to 40 ratio.

The commission has full authority to issue or grant any franchises, leases, contracts or other instruments to any person, firm or corporation for the use of the airport or any part thereof, but the commission will submit each franchise or lease to the local government for its approval in writing. The commission will establish all charges, fees and tolls established for the use of the airport and all revenue from this source is to be paid to the commission. The commission also has complete control of all rules and regulations regarding air traffic and use of the airport.

The lease between the commission and local government may be broken on terms agreed to at the time of negotiation.

The commission is establishing building minimums but will not build hangars itself. It will lease or contract with local operators for their facilities, and each operator will pay the commission 2% of his gross for the privilege of operating his business on the airport.

An extensive survey, resulting in a ten year airport plan for the state of Wyoming, has recently been completed by Kaiser Engineers, Inc., Oakland, Calif. The plan provides a system to be integrated with the national airways program and is so conceived as to lend itself to expansion during the next decade. Col. F. D. Gore was in charge of preparing the survey.

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P & W Wasp Major to Power Majority of Large Aircraft

Full Production Expected Soon on 3,000-HP Engine

PRODUCTION of the 28-cylinder Wasp Major R-4360 engine by Pratt & Whitney Aircraft Division of United Aircraft Corp. is still slowed up by shortages of certain parts, but the company is hoping to get into full-scale output before long. Moderate production has been in progress for some time and the engine is in use in a number of aircraft.

The list of aircraft which are being powered or which will be powered by the R-4360 has become quite impressive within the past six months with indications that this engine will be powering a majority of the big-type aircraft in the commercial field.

With a displacement of 4363 cubic inches, the R-4360 has a rated take-off power of 3000 horsepower at 2700 RPM. and the company claims that in combat it will deliver "in excess of" 3560 h.p. It is a 4-row, radial, air-cooled, geared-drive, supercharged 4-cycle engine. Weight per horsepower is 1.13 lb.

Aircraft which are, or will be, powered by the R-4360 follow:

Consolidated-Vultee B-36 (six-engined bomber), the XC-97 (transport version of the B-36), and the XA-41.

Douglas SC-74 (military version of the DC-7) and the XTB 2D-1.

Boeing B-44 and B-40 (versions of the B-29), the C-97A (cargo version of the B-29), the 367A and the 377-4 transports (Stratocruiser) and the XF8B-1.

Republic Rainbow and the XP-72.

Hughes F-11 (photographic) and the HK-1 Hercules (flying boat).

Curtiss XBTC-2.

Martin AN-1 and the JRM-2 (flying boat) and the XP4M-1.

Goodyear F2G-1 (Vought design).

Lockheed 89 (Constitution).

Northrop XB-35 (flying wing).

In addition there is one foreign order. The French aircraft manufacturer, Sud-Ouest, has ordered six R-4360's for a new transport now being built.

Commercially some of the top new transports will have R-4360 power. The Republic Rainbow, the Lockheed Constitution, the Douglas DC-7, and the Boeing Stratocruiser, are all definitely set. The six-engined Consolidated-Vultee O-97 has a projected commercial version, the Martin Mars flying boat is still in the running commercially, and the Northrop B-35 may capture commercial orders later.

Aircraft Engines of the World, 1946 Edition, by Paul H. Wilkinson, gives the following additional data on the R-4360:

Supercharger: gear-driven 1-stage variable-speed supercharger, maximum ratio 7.52:1 (no slip). Automatic boost control.

Carburetion: 1 Bendix-Stromberg PR-100B3 4-barrel downdraft injection type carburetor with automatic mixture control.

Ignition: 7 Bendix-Scintilla D-4Rn-2 duplex magnetos. 2 18 mm long reach spark plugs per cylinder. Shielded ignition system.

Lubrication: Pressure feed, 75-100 lb. sq. in. Dry sumo.

Starter: Optional. Eclipse 1416, or Jack & Heintz JH-6, direct cranking electric starter can be used.

Bore—5.75 in.

Stroke—4.00 in.

Displacement—4,363 cu. in.

Compression ratio—7.0:1

Diameter—32.5 in.

Length—96.7 in.

Frontal area—15.0 sq. ft.

Weight—3,390 lb.

Weight/horsepower—1.13 lb./h.p.

Fuel consumption (cr.)—0.42 lb./h.p./hr.

Oil consumption (cr.)—0.015 lb./h.p./hr.

Gasoline grade—100/130 grade

Oil grade (viscosity)—100 S.U. secs.

Output/displacement—0.69 h.p./cu.in.

Output/piston area—4.12 h.p./sq. in.

Piston speed (max.)—2,700 ft./min.

B.m.e.p. (max.)—202 lb./sq. in.

Rating (take-off)—3,000 h.p./2,700 r.p.m./51.0 in.

Rating (military, low)—3,000 h.p./2,700 r.p.m./1,500 ft.

Rating (military, high)—3,400 h.p./2,700 r.p.m./13,500 ft.

Rating (normal, low)—2,500 h.p./2,550 r.p.m./5,000 ft.

Rating (normal, high)—2,200 h.p./2,550 r.p.m./14,500 ft.

Rating (cruising, low)—1,675 h.p./2,230 r.p.m./13,000 ft.

Rating (cruising, high)—1,475 h.p./2,230 r.p.m./20,000 ft.

Establish Overseas Base To Service Constellations

Lockheed Aircraft Service has established an overseas service and supply base for transatlantic Constellations, at Shannon Airport, Eire. Henry H. Ogden, former supervisor of Lockheed wartime service activities for the AAF in the British Isles, has been named director of the base. The Shannon depot will service Constellations operated by American Overseas Airlines, TWA, Pan American Airways, KLM, Air France and British Overseas Airways.



Huge Prop for B-36—This 19-foot hollow steel bladed propeller has been developed by Curtiss-Wright Corp.'s propeller division for installation on the new Consolidated Vultee B-36. The propeller will absorb 3000 h. p. It features automatic synchronization, reversible pitch, and a new de-icing mechanism whereby heated air is circulated through the hollow steel blades. Development cost is reported to have been in excess of three million dollars.

Executive Deliveries in July

Douglas Aircraft company was to begin deliveries of its newly announced DC-3C "Executive" transport in July. The ultra-modern executive model is a post-war variation of the DC-3 and is priced at \$115,000.

Nine DC-3Cs already have been sold, according to Marshall S. Neal, sales executive, and deliveries are promised four months from order date.

Although Neal did not disclose names of purchasers, other than Douglas, which is retaining one for company use, he did identify the types of firms buying the ship and described some of the purposes to which it will be put.

Among the first to order was a large manufacturing concern with hundreds of scattered dealers. This firm plans to round up eight to 15 dealers each week and fly them to the plant for sales meetings.

An oil company will use its plane for executive travel over far-flung holdings, for exploration work and general sales activities. A boat manufacturer plans to use his transport for executive travel between plants located in Michigan and Florida.

Douglas Starts New Spare Parts Program

Douglas Aircraft Co., as a result of extensive use of surplus Douglas-built planes, has launched an expanded spare parts program for users of DC-3 and DC-4 types. A recently concluded arrangement with the War Assets Administration for warehousing and distribution of war surplus parts will augment the company's own program.

Douglas will give a warranty on all parts ordered from the company, whether they are surplus or from new stocks. Features of the overall plan include: retention of DC-3, C-47, and C-54 type production tooling for manufacture of spares; addition of C-47 and C-54 parts to the present DC-3 parts inventory; manufacture and supply on special order of parts not listed in stock; and the previously mentioned agency agreement with WAA under which Douglas has already assembled 35 carloads of surplus parts for inspection, modernization and warehousing.

West Resigns Executive V. P. Post With Boeing

H. O. West has announced his resignation as executive vice president of Boeing Aircraft Co., and Boeing Airplane Co. William M. Allen, president, announced that H. F. Brown has been named v.p.-production manufacturing and that F. P. Laudan, a vice president, will take charge of experimental manufacturing. Brown was formerly works manager of the Boeing Wichita division while Laudan was in charge of the Boeing Renton operation, during the war.

Stinson Orders More Franklins

Stinson Aircraft has placed an order with Aircooled Motors, Inc., for 2000 type "335" Franklin engines of 150 hp., for installation in the Stinson Voyager 150. This supplements an earlier order for 1,000 Franklin engines, now being installed in the four-place planes.

Texas Engineering Is Expanding Conversion Activities At Dallas

Texas Engineering & Manufacturing Co., organized last December as a partnership by two former executives of the Texas Division of North American Aviation—Robert McCulloch, division manager, and H. L. Howard, division controller—has added conversion of surplus transports to its manufacturing activities, and rapidly is becoming one of the largest centers for this work in the Southwest.

As of April 30, the date the partnership was reorganized as a corporation, Temco had completed 14 conversions, including 21-passenger C-47s for Transair, Beech AT-7s and Beech AT-11s. Temco was the first to get an AT-11 licensed, and has supplied several of these ships equipped with three seats and a lounge to Mexican interests.

On May 15 the company had 15 surplus aircraft in the process of conversion including three C-54s for a foreign government, six 30-passenger DC-3s for Pennsylvania-Central Airlines, two C-47s for Braniff Airways, C-47s for Chesapeake Airways, and for a Wisconsin representative of non-scheduled operators, and several C-47s and Beeches to be converted into executive transports.

Two separate departments with separate fully trained crews have been set up to handle the conversions—one for C-47s and Beeches, and the other for C-54s. The former operates on the main assembly floor of the former North American plant and at present accommodates nine ships on the line, although Ted Beck, chief engineer, has hopes of increasing this to 18 soon. The latter is set up in the North American "B" hangar which was taken on specifically for this work and holds four completed C-54s.

Mechanically all conversions are now being made to standard Douglas scheduled air carrier specifications, although some of the first were to non-scheduled specifications. Engines, where necessary, are replaced with surplus B-24 engines. Temco has its engine overhaul done by Southwest Airmotive of Dallas.

In the matter of interior finishes and arrangements Temco has made several interesting innovations such as a flocking which is sprayed on to give a suede-like finish. Interior arrangements have ranged all the way from a straight cargo C-47 for Transair to 28-passenger DC-3s for Chesapeake Airways and 30-passenger DC-3s for PCA. In still another standard 21-passenger conversion for another scheduled carrier, Temco is making the buffet, bulkheads, etc., demountable so that the ship can be quickly converted to cargo service. On this particular ship it is only sealing the rear cargo door so that it can be made usable, although on others the door is removed and the area skinned over. At present the forward cargo door serves as the passenger entrance on all conversions, but Temco expects in the near future to install standard airline doors on all models.

The three C-54s now in the shop are being fitted out as combination cargo-passenger aircraft with 22 seats forward and cargo space aft.

Time required for conversion is estimated by Temco engineers as five to six

weeks for C-47s and 90 days for C-54s.

As part of its conversion activity, Temco will offer also maintenance for non-scheduled and scheduled carriers and executive transport operators. Ships will be taken in on a job basis, with a flat rate being quoted for each job.

While conversion and maintenance are major activities at Temco and ones that will be pushed during the next few months, they are by no means the sole activities of the new corporation. The company has contracts with Fairchild to build 300 or more F-24s as well as many assemblies for the C-82 Packet. Another contract with Globe Aircraft calls for more than 1,000 125 hp Swifts, the first of which is expected to fly within the next week or two. Temco further is negotiating with a major company to build a personal aircraft, and if this deal goes through expects it will have to take over the entire North American "A" plant—at present it is using only about one-third of the plant.

Piper Buys Oklahoma Plant, Tests Experimental Cub

Acquisition of hangars at Ponca City, Oklahoma, by the Piper Aircraft Corporation will permit assembly of Piper Cubs at that plant, and already freight cars of 16 fuselage capacity are being shipped from the main plant at Lock Haven, Penna. It is anticipated that some of the parts will be made at Ponca City, but not that it will become an independent plant producing complete airplanes. More efficient and more economical service to the west and midwest is foreseen as a result of the move.

Much interest surrounds the test flying of an experimental Piper Cub at Lock Haven which carries wing flaps the complete span of the wings and enables take-offs and landings reminiscent of the old autogiro. With ailerons similar to those of the P-61 Black Widow night fighter, and the great flaps, the experimental model hovers in the air at practically zero speed, with full control. Landings and takeoffs over high trees or wires into small pastures make the model an exceptional type for off-airport operation.

Navion Set for Full Production in August

Full scale production of the Navion, North American Aviation's new four-place personal plane, will be attained in August, with a daily output of ten planes, the company has announced. Demonstrators, now coming off the line, are expected to be in the hands of factory dealers by August 1.

A total of 13 dealerships already granted for 16 territories, includes the following appointments:

Aviation Consultants, Inc., Reading, Pa.; Wright Aircraft Sales and Service, Memphis; Aero Enterprises, Denver; Southern Ohio Aviation Co., Dayton; Toth Aircraft and Accessories, Kansas City; Central States Aviation, Inc., Chicago; Van's Air Service, St. Cloud, Minn.; St. Louis Flying Service, St. Louis; Mallard Air Service, Inc., Newark; Gulf Aeronautics, Dallas; Aircraft Service Co., Boise; Midwest Aviation Service, Oklahoma City and Palo Alto Airports, Inc., Palo Alto, Calif. Three other dealers are to be appointed soon from a list of 2,000 applications, the manufacturers have announced.

New British Helicopter

Weir Ltd. and the Cierva Autogiro Co., both of England, have jointly developed the W-9, a single-rotor helicopter with the first application of jet thrust to counteract rotor torque instead of the standard anti-torque propeller at the end of a tail boom. Exhaust gases are the primary source of the jet thrust which is exerted through a boom kinked at the end to the proper angle for the jet to offset rotor torque. The gases are speeded up by an auxiliary fan inserted in the flow. The W-9 is powered by a 330 hp Gipsy Queen engine.

Agency To Publicize Irving

Advertising and publicity for Irving parachutes has been delegated to Addison Vase Co., Buffalo, N. Y. In addition to furthering the interests of the Irving Air Chute Company in print, Addison Vase will also act as counselors on marketing and merchandising and direct all sales promotion work.



Piper's Skysedan—Piper Aircraft's new PA-6 four-place Skysedan now is undergoing flight tests at Lock Haven, Pa. Equipped with 165 hp. engine, the aircraft has a top speed in excess of 160 mph, cruises at 140 mph. The all-metal aircraft will be in production by 1947. Price has not been announced, but it is said to range between \$3500 and \$4600.

Altitude Chamber at NAA Reduces Testing Costs on Accessories

Substantial savings in the cost of testing aircraft accessories and other equipment are expected to be realized by North American Aviation through the use of a new refrigerated altitude chamber which has just been placed in use by the research section of the company's engineering department.

Using laboratory facilities which duplicate the operational environment of the airplane, components and designs can be tested in the altitude chamber at a cost of approximately \$50 an hour. The same tests made in flight with a prototype or experimental airplane would cost from \$500 to \$1,500 per hour. In the case of a four-engined jet plane the cost might run to as much as \$2,000 an hour.

Inside the 75-ton steel cylinder, research men can create almost any climatic flying conditions in which to carry on their research and development. The chamber is equipped to operate between the extremes of 200 degrees of heat to 100 degrees below zero. Besides manufacturing flying temperatures at will, engineers can control humidity from desert aridity to fog, rain, ice, snow and sleet and create high-speed recirculation of air to simulate icing conditions of a flying plane. Air densities at sea level to 60,000 feet can be reproduced to study the problems of flying within that altitude range.

Within the chamber, which is the largest in the aircraft industry, temperature, altitude, humidity and air velocities can be produced separately or simultaneously to determine what happens to an airplane, its instruments, hydraulic equipment, cabin heating and ventilating systems and other accessories. Rates of climb can be varied up to 7,500 feet per minute and dives can be made at rates up to 20,000 feet per minute.

Measuring 53 feet in length and 17 feet in diameter, the chamber is large enough to hold the entire fuselage of a fighter plane or large sections of a bomber or transport types, permitting functional tests of entire systems. The altitude chamber represents an investment of \$68,000.

Manufacturing Personnel

William H. Klenke, Jr., former assistant sales manager for Vultee Aircraft, Inc., has been named manager of the Consolidated Vultee office in New York. James L. Green, eastern region sales manager for the Stinson division will also make his headquarters at 420 Lexington Avenue.

O. E. Rodgers has been appointed manager of development and research engineering of the aviation gas turbine division of Westinghouse, South Philadelphia. W. B. Anderson will serve as manager of design engineering at the same plant.

Max W. Burrell has been named general sales manager for the Collins radio company. He will retain his duties as assistant secretary of Collins.

Fred E. Amon will concentrate on aviation work in his new capacity as manager of aircraft sales of the Parker Appliance Co., Cleveland. He is succeeded in his former position as general sales manager of Parker by Dan W. Holmes, formerly of the Weatherhead company.

Charles Walker, former Douglas field representative in the Kansas City area, has been transferred to Santa Monica to serve on the analysis staff of the parent plant.



Leitner

Terese

Jones

Andrew F. Halduck, vice president of Bellanca Aircraft Corp., has announced his resignation, effective July 15. A graduate of the Guggenheim School of Aeronautics, Halduck has been connected with the Bellanca organization since 1929.

S. R. Terese, formerly with Curtiss-Wright at Buffalo, has joined the Weatherhead offices in Cleveland. He has been appointed as aviation project engineer.

Charles J. Leitner has joined the engineering staff of Aircooled Motors, Inc., Syracuse. He will serve as propeller engineer of the engine company.

J. C. (Jim) Welsh, former Stinson division sales manager, has announced the formation of Personal Airplane Sales Corp., with offices at 147 W. 42nd St., N. Y. C. The organization will distribute Cessna airplanes.

Fred W. Zellmar, aeronautical engineer, has joined Southwest Automotive Company, Love Field, Dallas, as coordinator of maintenance for private flyers. He was recently discharged as a captain in the AAF.



McLean

Zellmar

Boynton

Henry G. Boynton has been named west coast manager of Simmonds Aerocessories, Inc. He was formerly in charge of the east coast sales territory.

Noel B. McLean has been named executive vice president of Edo Aircraft Corp. He was formerly general manager of the marine division factory of Bendix Aviation Corp.

Charles D. Manhart has been appointed sales manager in charge of all aircraft product sales of Bendix Products Division. The post of assistant sales manager is to be filled by I. F. Richardson.

Richard G. Leitner has been named chief electronics engineer of Lear, Inc. He will make his headquarters at Los Angeles after becoming familiar with Lear products at Grand Rapids. Harry S. Jones, formerly with Thomas A. Edison, Inc., has also been named to the Lear staff as assistant chief engineer in charge of research and development.

Richard D. Peterson has been appointed sales engineer for the eastern territory of Ryan Aeronautical Co. His headquarters will be in the metal products division of the Ryan offices, 516 Bond Bldg., Washington, D. C. James Steinhaker has also been assigned to the eastern office as engineering representative. E. R. Scroggie is Ryan's aircraft representative in the east.

J. H. Quam has been named assistant general manager of Bendix Products Division, at South Bend. He has been assistant comptroller of the corporation during the past eight years.

A. A. Rorison has been appointed general auditor of the Douglas Aircraft Co. He formerly served as chief contract auditor at Douglas and spent nine months with the Air Corps, during the war.



Holmes

Burrell

Amon

Manufacturing Briefs

● Edo Aircraft Corp., has stepped up production to the point where, as of the second week in June, twice as many lightplane metal floats had been turned out during 1946 than during any previous full year. The current production rate is 40 floats per week. Anticipated total production for 1946 at Edo, will be seven times greater than any previous year.

● Aeronca Aircraft Corp., with a daily output of 43 planes, has announced that its facilities are producing more personal planes than any other concern, here or abroad. Aeronca's payroll has been increased to nearly 2000 persons and the combined floor-space of the Middletown and Dayton factories approximate 300,000 square feet. Chiefs and Champions are being turned out at a rate of one every 25 minutes, each working day and John W. Friedlander, president, announces that Aeronca expects to build 10,000 planes during 1946.

● Doak Aircraft Co., Torrance, Calif., has reelected all officers and directors for the next year. The board includes Edmond R. Doak, Chairman, Leonard Comegys, Windsor O. Crow, Nelson E. Grace, Stephen F. Hinchliffe, Donald M. Palmer and Reed H. Perkins. Products now made by Doak include patio chairs, store showcases and airliner seats.

● Production facilities of Air Associates have been increased at Teterboro Airport, with the purchase of a government erected building from the War Assets Administration. Products to be turned out in the new plant will be the Davis cargo tie down gear for transport planes. Air Associates has also been named distributor for the aviation products of the MacWhythe Co., Kenosha, Wis.

● All directors of the Fairchild Engine and Airplane Corp., have been reelected, at the annual meeting held at Baltimore. Continuing in office are Sherman M. Fairchild, J. Ford Johnson, Jr., Webb Wilson, J. A. Allis, Myron B. Gordon, Roswell H. Rausch, William B. Scarborough, J. Carlton Ward, H. H. Budds and Richard S. Boutelle.

● Aeromatic Aircraft Propellers has announced a backlog of more than \$1,000,000, covering three different models. Sid Fedan, manager reports that Aeromatics are now available in factory installations for both models of the Globe Swift as well as Bellanca Cruislers, North American Navions and Johnson Rockets. Standard equipment for the Republic Seabee, will include a ground adjustable Aeromatic.

● Douglas aircraft factory has received CAA production certificates for the DC-3 and DC-4 models, entitling the company to manufacture both types with a minimum of government supervision. The certificates reinstate a privilege granted for the DC-3 in July, 1941 and surrendered during the war. More than 10,000 DC-3's and 1,200 DC-4's have been produced for the Army, Navy and commercial airlines.

● Boeing key officials met recently at Wichita to conduct the kick-off for a program designed to market the new 417 transport, known as the "little brother" of the Strato-cruiser. The high speed transport, which will carry from 22 to 24 passengers, has been ordered into quantity production at the Wichita factory.

● Luscombe is now fitting the Silvrave models with an all-metal wing, composed of nine panels, all replaceable. A five to eight mph increase in speed over standard models has been announced by L. H. P. Klotz, president who also pointed out that the use of the all-metal wing, requires the installation of a single strut joining wing and fuselage.

● Employment at the Ryan Aeronautical Co., will approach the 2,000 mark by late fall, according to T. Claude Ryan, president. An increase of approximately 100 new workers per month is being planned to bring the San Diego personnel up to desired strength.

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INTAVA—IN ALL LANGUAGES—STANDS FOR
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Financial Comment

by
I. W. Burnham, II
of

Burnham & Company
Members of New York Stock Exchange

During the past few months we have been receiving the 1945 annual reports of many of the leading aircraft manufacturers. The report of Lockheed Aircraft Corporation has just reached our desk and together with the interim report of last April a picture of the post-war problems of the company has been drawn by the management. To determine the effect of the war upon the financial status of Lockheed, we made a comparison of the balance sheet of December 31, 1939 with that of December 31, 1945, the highlights of which are given in the table below.

During the war years (1940-1945) net sales of the company after renegotiation refunds and fee contract provisions totaled \$2,335 million. This volume of business contributed largely to the vast improvement in the company's financial condition. At the beginning of 1940 the plant account had a gross value of somewhat less than \$4 million and a net value of \$3.3 million. At the end of last year the gross plant account, including emergency facilities, was roughly \$30 million with a net value of just under \$4 million. Post-war reserves of \$13.8 million were created, working capital increased approximately \$40 million and earned surplus rose \$24 million after the payment of \$12 million of dividends during the six war years.

Representative of Industry

The tremendous financial improvement of Lockheed is representative of the leading companies in the industry. Improved financial condition is a necessary asset in attempting to solve the operating problems of the post-war period. The modern plants and large working capital are available to many aircraft manufacturers for the possible diversification of their business as well as the continuation of their regular operations.

From peak sales of approximately 2/3 of a billion dollars in 1943, Lockheed must adjust to a total backlog of approximately \$200 million, which breaks down roughly, 75% military and 25% commercial. This deflation of activity will be the acid test of the quality of management not only in this company, but throughout the industry. The position of the industry is described in the Lockheed interim report in the following terms: "The war has developed a number of large, well-equipped and soundly financed aircraft manufacturers, and there will be keen competition for the greatly reduced post-war markets."

Lockheed Aircraft Corporation Balance Sheet Items.

(000 omitted)
12/31/39-12/31/45

Plant Account (Gross)	\$3,937	\$ 6,088
Plant Account (Net)	3,313	3,944
Emergency Facilities (Gross)	0	23,988
Emergency Facilities (Net)	0	0
Postwar Reserves	0	13,798
Net Working Capital	2,888	42,665
Earned Surplus	3,005	27,292

Leading Aviation Securities

(Courtesy of Burnham & Co.)

New York Stock Exchange

AIRLINES	1946		Range for 6 Days		Range for 6 Days		Two Weeks
	High	Low	High	Low	High	Low	Not Change
American Airlines	187 1/2	181 1/2	175 1/2	16	187 1/2	187 1/2	—
Eastern Air Lines	244 1/2	244 1/2	244 1/2	244 1/2	244 1/2	244 1/2	—
National Airlines	211 1/2	205 1/2	205 1/2	205 1/2	205 1/2	205 1/2	—
Northwest Airlines	247 1/2	24	247 1/2	247 1/2	247 1/2	247 1/2	—
Pan American Airways	268 1/2	211 1/2	268 1/2	268 1/2	268 1/2	268 1/2	—
Penn.-Central Air	27	18 1/2	20 1/2	18 1/2	20 1/2	18 1/2	—
Trans. & Western Air	75 1/2	68 1/2	42 1/2	40	41	39 1/2	—
United Air Lines	244 1/2	244 1/2	244 1/2	244 1/2	244 1/2	244 1/2	—
Western Air Lines	38	22 1/2	24 1/2	24	24 1/2	22 1/2	—

MANUFACTURERS, ETC.

MANUFACTURERS, ETC.	1946		Range for 6 Days		Range for 6 Days		Two Weeks
	High	Low	High	Low	High	Low	Not Change
Aviation Corp.	143 1/2	9 1/2	107 1/2	10	103 1/2	97 1/2	—
Aviation Corp. of	83 1/2	83 1/2	83 1/2	83 1/2	83 1/2	83 1/2	—
Boeing Aircraft	307 1/2	147 1/2	24	22	22 1/2	22 1/2	—
Boeing Aviation	88	48 1/2	90	48	48	48 1/2	—
Boeing-Wright	121 1/2	121 1/2	121 1/2	121 1/2	121 1/2	121 1/2	—
Boeing-Wright	24 1/2	20	22 1/2	20 1/2	21 1/2	20	—
Boeing-Wright	108 1/2	84 1/2	84 1/2	84 1/2	84 1/2	84 1/2	—
Boeing-Wright	82 1/2	42	49 1/2	45 1/2	47 1/2	46	—
Boeing-Wright	45 1/2	31 1/2	36 1/2	32 1/2	34 1/2	31 1/2	—
Boeing-Wright	225 1/2	115 1/2	115 1/2	115 1/2	115 1/2	115 1/2	—
Boeing-Wright	28 1/2	20 1/2	23 1/2	22 1/2	22 1/2	21 1/2	—
Boeing-Wright	15 1/2	15 1/2	15 1/2	15 1/2	15 1/2	15 1/2	—
Boeing-Wright	247 1/2	15 1/2	22 1/2	20	20 1/2	20	—
Boeing-Wright	401 1/2	29 1/2	31 1/2	29 1/2	31 1/2	29 1/2	—
Boeing-Wright	17 1/2	17 1/2	17 1/2	17 1/2	17 1/2	17 1/2	—
Boeing-Wright	108	83	88	84	84	84	—

New York Curb Exchange

AIRLINES

AIRLINES	High	Low	High	Low	High	Low	Not Change
Alaska Airlines	12	9 1/2	11	9 1/2	9 1/2	9 1/2	—
Colonial Airlines	43	28	31	30	31	28 1/2	—
Northwest Airlines	21 1/2	18 1/2	18 1/2	17 1/2	18 1/2	18 1/2	—
Pan American Air. war.	14	7 1/2	8 1/2	7 1/2	8 1/2	7 1/2	—

MANUFACTURERS, ETC.

MANUFACTURERS, ETC.	High	Low	High	Low	High	Low	Not Change
Aero Supply 'A'	231 1/2	203 1/2	203 1/2	203 1/2	203 1/2	203 1/2	—
Aero Supply 'B'	231 1/2	15	187 1/2	17 1/2	183 1/2	17 1/2	—
Aero Supply 'C'	231 1/2	15	187 1/2	17 1/2	183 1/2	17 1/2	—
Aero Supply 'D'	231 1/2	15	187 1/2	17 1/2	183 1/2	17 1/2	—
Aero Supply 'E'	231 1/2	15	187 1/2	17 1/2	183 1/2	17 1/2	—
Aero Supply 'F'	231 1/2	15	187 1/2	17 1/2	183 1/2	17 1/2	—
Aero Supply 'G'	231 1/2	15	187 1/2	17 1/2	183 1/2	17 1/2	—
Aero Supply 'H'	231 1/2	15	187 1/2	17 1/2	183 1/2	17 1/2	—
Aero Supply 'I'	231 1/2	15	187 1/2	17 1/2	183 1/2	17 1/2	—
Aero Supply 'J'	231 1/2	15	187 1/2	17 1/2	183 1/2	17 1/2	—
Aero Supply 'K'	231 1/2	15	187 1/2	17 1/2	183 1/2	17 1/2	—
Aero Supply 'L'	231 1/2	15	187 1/2	17 1/2	183 1/2	17 1/2	—
Aero Supply 'M'	231 1/2	15	187 1/2	17 1/2	183 1/2	17 1/2	—
Aero Supply 'N'	231 1/2	15	187 1/2	17 1/2	183 1/2	17 1/2	—
Aero Supply 'O'	231 1/2	15	187 1/2	17 1/2	183 1/2	17 1/2	—
Aero Supply 'P'	231 1/2	15	187 1/2	17 1/2	183 1/2	17 1/2	—
Aero Supply 'Q'	231 1/2	15	187 1/2	17 1/2	183 1/2	17 1/2	—
Aero Supply 'R'	231 1/2	15	187 1/2	17 1/2	183 1/2	17 1/2	—
Aero Supply 'S'	231 1/2	15	187 1/2	17 1/2	183 1/2	17 1/2	—
Aero Supply 'T'	231 1/2	15	187 1/2	17 1/2	183 1/2	17 1/2	—
Aero Supply 'U'	231 1/2	15	187 1/2	17 1/2	183 1/2	17 1/2	—
Aero Supply 'V'	231 1/2	15	187 1/2	17 1/2	183 1/2	17 1/2	—
Aero Supply 'W'	231 1/2	15	187 1/2	17 1/2	183 1/2	17 1/2	—
Aero Supply 'X'	231 1/2	15	187 1/2	17 1/2	183 1/2	17 1/2	—
Aero Supply 'Y'	231 1/2	15	187 1/2	17 1/2	183 1/2	17 1/2	—
Aero Supply 'Z'	231 1/2	15	187 1/2	17 1/2	183 1/2	17 1/2	—

*Called for redemption on June 24, 1946.

Over-the-counter Securities

AIRLINES	June 21, 1946		June 28, 1946	
	Bid	Asked	Bid	Asked
Air Cargo Transport	41 1/2	41 1/2	41 1/2	41 1/2
All American Aviation	9 1/2	10 1/2	9 1/2	10 1/2
American Overseas Airlines	88	88	88	88
Chicago & Southern Air Lines	20 1/2	20 1/2	20 1/2	20 1/2
Continental Air Lines	19 1/2	20 1/2	19 1/2	20 1/2
Delta Air Lines	44 1/2	44 1/2	44 1/2	44 1/2
Emery Air Freight Corp.	2 1/2	3 1/2	2 1/2	3 1/2
Express Aero	8 1/2	9 1/2	8 1/2	9 1/2
Flamingo Air Services, Inc.	1 1/2	2 1/2	1 1/2	2 1/2
Flying Freight, Inc.	1 1/2	2 1/2	1 1/2	2 1/2
Great Circle Airways, Inc.	1 1/2	2 1/2	1 1/2	2 1/2
Hosler Air Freight Corp.	1 1/2	2 1/2	1 1/2	2 1/2
Inland Airlines	9 1/2	11	9 1/2	11
International Air Lines, Inc.	1 1/2	2 1/2	1 1/2	2 1/2
Island Air Service, Inc.	1 1/2	2 1/2	1 1/2	2 1/2
Latin American Airways, Inc.	2 1/2	3 1/2	2 1/2	3 1/2
Mid-Continent Air Lines	18 1/2	17 1/2	18 1/2	17 1/2
National Skyways Freight Corp.	3 1/2	4 1/2	3 1/2	4 1/2
Public Flyers, Inc.	1 1/2	2 1/2	1 1/2	2 1/2
TACA Airways	11 1/2	12 1/2	11 1/2	12 1/2
Trans Caribbean Air Cargo Corp.	3 1/2	4 1/2	3 1/2	4 1/2
U. S. Airlines, Inc.	1 1/2	2 1/2	1 1/2	2 1/2

MANUFACTURERS, ETC.

MANUFACTURERS, ETC.	High	Low	High	Low	High	Low	Not Change
Aeronautical Products	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	—
Aerona	13 1/2	14 1/2	14 1/2	14 1/2	14 1/2	14 1/2	—
Aircraft & Diesel	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	—
Airplane & Marine	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	—
Central Airports	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	—
Columbia Aircraft	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	—
Continental Aviation	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	—
General Aviation Equip.	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	—
Gladden Products	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	—
Globe Aircraft	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	—
Harlow Aircraft	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	—
Harvill Corp.	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	—
Interstate Aircraft & Engine	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	—
Kellett Aircraft	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	—
Liberty Aircraft	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	—
Luscombe Airplane	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	—
McDonnell Aircraft Corp.	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	—
McDonnell Aircraft Corp., pfd.	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	—
Pacific Air	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	—
Pacific Air	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	—
Standard Aircraft Prod.	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	—
Taylorcraft	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	—
Time Aircraft	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	—

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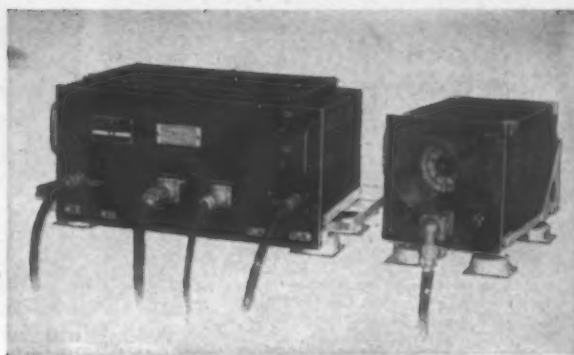
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Trans World Airline



AVIATION SECTION

RADIO CORPORATION of AMERICA

ENGINEERING PRODUCTS DEPARTMENT, CAMDEN, N.J.

Financial Briefs

Luscombe Airplane Corp. has instituted a profit sharing plan whereby the company's 1,000 employees are to receive a third of the firm's net profits each quarter, before federal taxes are deducted. The plan provides that each employee is to receive a bonus amounting to the same percentage of his gross pay within the quarter, as the total bonus bears to the total payroll. No bonus is to be paid should the net profits amount to less than 1% in any quarter. In such instance, the profit would be carried over to the next quarter. The plan is expected to increase productivity and improve workmanship, according to L. H. P. Klotz, president.

All American Aviation, Inc., is offering 100,000 new shares of common stock, with a par value of \$1. Shares are listed currently at \$9.75. From the proceeds of the sale, AAA plans to invest approximately \$560,000 in new planes.

United Aircraft Products, Inc., Dayton, Ohio, will hold a stockholders meeting at Dayton, Sept. 26, to vote on a "two-for-one" stock split, in accordance with a mandate issued at the last annual stockholders meeting. Aaron Saphier, board chairman, reports there are now 294,419 shares of UAP common stock, issued and outstanding. Stockholders of record on Sept. 4, will be entitled to vote at the meeting.

National Offers Common Shares—National Airlines will finance the purchase of six new DC-6's and a DC-4 on proceeds from the sale of 150,000 common shares, par \$1, to be offered publicly, at a price to be filed by amendment, through an underwriting group headed by Lehman Bros. Additional financing may be necessary since the aggregate cost of the new planes will be \$3,830,000.



Add Wing To Factory—Taylorcraft production will be stepped up materially with the completion of the new factory wing, scheduled for completion within 90 days. The building will add 200,000 sq. ft. of floor space to the Taylorcraft assembly line. Current production is 30 planes daily.

Solar Aircraft Co., has reported consolidated net sales of \$22,755,833 for the fiscal year ending April 30, with a net profit after taxes of \$470,332. An additional \$68,238 was credited to earned surplus representing the adjustment of accruals for renegotiation refunds of prior fiscal years. Combined earnings per common share, after preferred dividends, were \$0.86, according to the report of E. T. Price, president. The report also revealed that unfilled orders for the San Diego and Des Moines plants, totalled \$4,412,500 as of April 30 and an additional six million dollar backlog, since that date. New orders included contracts for exhaust manifolds, jet and gas turbine parts, automatic film developing equipment and experimental projects for the armed forces, Price announced.

Continental Motors Corp., in its 44th annual report, disclosed total sales for the fiscal year of \$205,952,442.78. Net profit for the same period was \$5,017,175.67 or \$1.67 per

share. Unfilled orders for delivery over the next two years, totals approximately \$110,000,000, according to the report.

Kellett Aircraft Corp., reports a backlog of \$5,400,000 in unfilled orders, as of June 30. Orders cover new government contracts for helicopter engineering and construction, quick-freeze refrigeration units and a diversified line of sheet metal articles. Shortage of materials is blamed for temporary delays in production schedules, according to W. Wallace Kellett, president. Not included in the backlog, Kellett said, was the development of a multi-engine helicopter, to be offered to operators before the end of the year.

Ryan Aeronautical Co., has gone on a regular quarterly dividend basis, according to T. Claude Ryan, president. The Ryan board of directors has announced an initial quarterly dividend of 10 cents per share, payable June 10 to stockholders of record of May 25. In addition, a special dividend of 15 cents per share, was declared, payable on the same date to the same stockholders.

Fairchild Engine & Airplane Corp., has notified its banks that it has elected to reduce its regulation V credit from \$10,000,000 to \$5,000,000. Two previous reductions in 1945 had reduced the V-loan credit to \$10,000,000 from the original amount of \$25,000,000, arranged in November, 1944. Webb Wilson, treasurer, explained that Fairchild had borrowed no money under this credit since September, 1945 and does not presently anticipate borrowing in the near future. On May 31, Fairchild had backlog orders totalling more than \$68,000,000, Wilson said.

Mid-Continent Airlines operating revenue for May, 1946, totalled \$439,582, reflecting an 80% increase over May of 1945, according to John C. Collins, v.p. A 92% increase in revenue miles flown over May 1945 was also revealed. Net profit before taxes was \$69,452 for the month. Operating efficiency of the line remained at the industry level of 99.86%, Collins said.

G&A Designs Helicopter

G & A Aircraft, Inc., Willow Grove, Pa., a subsidiary of the Firestone Tire & Rubber Co., is designing a compact 4-place helicopter to be known as the GA-50. The new plane will feature a dual tail rotor and structural consolidation of the tail boom into the fuselage. The dual tail rotors are said to permit shortening of the fuselage and elimination of the high tail boom common to other helicopter designs.

Beech Denies Rumors

Walter H. Beech, president of Beech Aircraft Corp., has announced that arrangements between Beech interests and the Fokker Aircraft Works in the Netherlands, have reached the stage of preliminary negotiations only. Beech explained, in an effort to squelch certain rumors and reports, that Beechcraft and Fokker have merely agreed to discuss the possibility of mutual cooperation in the design and manufacture of aircraft. No decision will be made until Beech studies the European aviation situation firsthand, and discusses all phases of the project with his associates, he has announced.

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Operations and Maintenance Review

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COMMUNICATIONS—NEW EQUIPMENT—AIRPORTS

Immediate Use of Airborne Radar by Airlines Unlikely

Officials Predict 2-3 Year Period for Development

By DAVID SHAW

A VAILABLE airborne radar equipment, which many military pilots felt was an essential part of their flight equipment and with which they willingly flew into all sorts of unknown conditions, is being viewed with skepticism by commercial airlines.

There is little likelihood that any of the airlines will install radar in its present state of development, and it seems probable that a minimum of two or three years will elapse before equipment can be improved to satisfy the various requirements of commercial air carriers.

Most of the airlines have been testing or inquiring into airborne radar, and a brief survey indicates considerable enthusiasm about its future uses but reluctance to accept and install equipment which has thus far been developed.

Robert W. Ayer, director of operational engineering for American Airlines, has summed up the prevailing airline attitude by saying, "airborne radar will not, at this point, do all of the things advertised for it in commercial aviation. The value of such radar has been badly overplayed. We are excited over its potentialities. We are working to find means of modifying the equipment to put it to airline use. But there are many limitations on the present equipment."

American has been flying a special DC-3, the Flagship Alpha, for several months in an effort to evaluate the utility of military-developed radar in commercial operations. The tests are continuing, but American officials are joining with men who are making similar studies in other airlines in expressing doubt that radar is far enough along to justify immediate installation in airline planes.

Weight does not appear to be a major consideration, although radar set, antenna dome and accessories for such equipment as the APS-10 weighs about 125 pounds. Most complaints have to do with what can be seen in present day scopes, compared with what the airlines would like to be able to see for safe, all-weather flying. One of the statements made by American's Ayer after a recent public demonstration was that while the military services are "willing to accept an element of chance to carry out a mission" the commercial airlines "must operate cautiously. We must build no death traps into our radar system. We must not give the pilot a false sense of security."

Technicians and pilots who have tested radar for commercial use seem in agreement on the lack of clarity in images re-

produced, the difficulty of interpreting even the clearest images, and the lack of all-purpose utility in any single set now available. Even military pilots who became sold on radar during the war seem willing to admit that improvements are necessary before it can be used commercially. The most enthusiastic military pilots seem to be those who used it as an aid to navigation, particularly in over-water flights where land masses against water are fairly sharply defined, rather than as a collision warning or storm detecting device. Also, most military planes carried trained radar operators with considerable ability in interpreting images. There have been extensive commercial complaints that it is difficult to distinguish and measure objects and contours when flying over inland terrain.

Exactly what is needed has not yet been clearly outlined to radar manufacturers. It appears that the airlines are hoping for the development of a single piece of equipment which will combine the best features of radar and television for obstacle and storm avoidance, loran for long-range position fixing, airborne plane detection for faster traffic control over airports, and a combination of the best proposed equipment for blind approaches and landings. To get a fair portion of these requirements with present equipment would obviously require excessive additions to the plane, not all of them satisfactory, plus ground installations which do not exist and for which equipment is still in the controversial stage.

Controversy over radar itself, and what should be expected of it in commercial operations, does not amount to heated disagreement. However, the lack of agreement is a factor which must be considered in offering the estimate that radar is at least two or three years away. Such an estimate, according to spokesman for separate airlines and for the industry as a whole, assumes that the industry will get together in the very near future and offer manufacturers a reasonable set of specifications for commercial aircraft radar.

Ferry New Planes

Skyways Transport Service, Inc., with headquarters at Detroit, is ferrying approximately 150 airplanes per month from factories to dealers and distributors. Civilian planes are delivered at a cost of from 10 to 15 cents per airline mile. At present, insurance restrictions prevent operations outside of the United States but STS plans to expand its service to foreign countries as soon as permits become available.



Radar Experts—Shown discussing the viewing scope of a GE-built APS-10 radar set are Dr. W. R. G. Baker, left, vice president in charge of General Electric Co.'s electronics department, and Robert W. Ayer, American Airlines expert who is coordinating the company's radar studies. The cockpit installation is in American's test ship, the Flagship Alpha.

CAA to Conduct Crash Tests With Gas Tanks

The Technical Development Division of the Civil Aeronautics Administration is preparing to make extensive crash tests on various types of gasoline tanks for the purpose of developing information for use in reducing fire hazards in crash landings of aircraft.

The Division is now building a catapult at Indianapolis which will be used to crash some eight or 10 different types of gasoline-filled tanks to concrete and turf runways under simulated crash landing conditions. Results of the experiments will be tabulated so that aircraft design engineers will have definite information on the weight and cost penalties which must be paid to increase the safety factor. It is expected that the experiments will begin next fall.

Tests also are to be made on various type engine nacelles with the idea of reducing fire hazards.

In order to obtain greater efficiency in its operations, the Technical Development Division headed by Chief Don Stewart, moved all of its personnel to Indianapolis. Only John Easton, Deputy Chief of the Division, will remain in Washington as a liaison officer. A new office building for CAA personnel is now being built at Indianapolis.

Landgraf Tests Helicopter

The Landgraf Helicopter Co., of Gardens, Calif. has completed its first test flights for the Army of its twin, three-blade, contra-rotating rotor helicopter. The Army is reported to have completed its inspection and accepted the plane. The Landgraf company has contract to build a number of these craft for the Army on an experimental basis. Further tests of the craft are being planned.

Southwest Airmotive Does Big Business in Airline Engine Work

Long known as an overhaul and repair center for light aircraft engines—during the war it handled 185 hp Lycomings for the Army at a better than 12 a day rate—Southwest Airmotive Co., Dallas, has in the last four months become one of the country's major bases for the repair, overhaul and conversion of airline engines (P&W R-1830s and R-2000s).

Starting in the heavy engine business last March when it overhauled six R-1830s for American Airlines, Southwest already has built this phase of its activities to a point where it has a quarter million dollar (80 engine) backlog in its overhaul department, with more power plants coming in daily from all sections of the country. Included in the current backlog are eight R-2000s and nine R-1830s for TACA Airways, 11 engines for Transair in Newark, and one or more each for U. S. Airlines, St. Petersburg, Fla.; Waterman Airlines, Mobile, Ala.; Southern Airways, Atlanta; Air Carrier Supply Corp. (Chesapeake Airways) Washington, D. C.; and G. I. Mutual Airlines, New York. Also on the overhaul schedule are engines for Texas Engineering & Manufacturing Co. (Braniff, etc.) Executive Transport Co. (PCA, Northeast, etc.) Creole Petroleum of Venezuela, Mene Grande Oil Co. of Venezuela, Reynolds Metals Co., Richmond, Va.; Clint Murchison, oil executive; Brown Paper Mills, San Antonio and the Le Tourneau Co. of Georgia (R-1829s); while negotiations are now in progress with three major scheduled airlines.

Currently Southwest is turning out four heavy engines a week with a schedule of two weeks from door to door being maintained. The company is negotiating for additional space for immediate occupancy which would double its present facilities, and is aiming at a 45 engine a month output by Jan. 1.

According to Winston Castleberry, vice president of Southwest Airmotive, the company is one of two authorized distributors for Pratt & Whitney and three authorized distributors for Wright in the United States, and is one of the few places where the necessary tools and parts for overhauling big engines are available. For example, he pointed out, Delta recently flew in a rod assembly for disassembly and checking, because a special tool was needed and Southwest was the closest place it could be found.



Airporter Club Coach

Currently on a nationwide tour of major airports and airline bases, this 23 passenger bus is being publicized as an answer to the passenger transportation problem at larger air terminals. Quick loading and unloading, roomy seating arrangement, interior soundproofing and ventilation, and an extra-large rear baggage space are offered. The bus is powered with a Buick-built engine, and has a wheelbase of 216 inches, overall length of 33 feet, overall width of 95 inches and height of 111 inches. It is manufactured by The Flexible Co., Loudonville, Ohio.

Engine Test Units To Be Continued By Janke Firm

Frank H. Janke, Jr., v.p., and M. E. Storer, v.p. executive engineer, of Jacobson and Co., Inc., New York, have formed a new company to assume control and



Janke

Storer

continue operation of the engine test division of the original firm. As Janke and Company, they will take over the design, construction and engineering service on aviation test units, including construction of the new "package" engine test units for small airports. The first unit is already in operation at Teterboro Airport, N. J.

Overhaul work at Southwest comes under the direction of Louis J. Beimer and follows a 5-step pattern. First the engine is completely disassembled by a special crew, made up for the most part of trainees, since Beimer has found that tearing down an engine is the best training possible for a new man. Accessories are sent immediately to the accessory department, and all other parts are placed on two special racks, one for the cylinders and a second for all other engine parts, with parts from one engine only being placed on each rack.

Step number two is cleaning. Three vats are used, each able to handle the largest engine assemblies now in use. The first is a steam heated degreasing bath, and is followed by a special Fuzee cleaning bath and a rinse. Any dirt remaining after these baths is removed by hand with wire brushes and compressed air. Cylinders and pistons are cleared of carbon with Carbo-blast, similar to sandblasting, but using a walnut shell material.

Cleaned parts are next returned to their same racks and passed on to the inspection

Air Freight Pickup Expedited By Use Of Short Wave Radio

Pickup of United Air Lines' air freight in the Chicago area is now being expedited by two-way radiotelephone which connects the contract trucking company's dispatching office with trucks throughout the city. So far as is known, it is the first time the speed of radio has been combined with the speed of air service for faster handling of air cargo.

The Willet Company, exclusive Chicago contractor for pickup and delivery of United's freight, has installed a 250 watt transmitter in its offices at 700 S. Desplaines St., and has equipped a number of trucks with receiver-transmitter sets, using a frequency range of 156 to 162 megacycles.

Shippers of air freight are assured the fastest possible transfer of commodities from point of origin to the airport. Notification of new consignments can be passed from shipper to United to the Willet Co. dispatching office, and thence to the nearest truck, in a matter of moments. Radio equipment was installed primarily because of delays and inconveniences in the old system of having drivers call in from time to time to get instructions from the dispatcher, or having the dispatcher call ahead to try to catch drivers at scheduled stops for emergency instructions.

Radio equipment used in the new cargo pickup system is of Raytheon Mfg. Co. manufacture.

tion department. Here steel parts are separated from aluminum and magnesium. The former are all magnafluxed, while the latter are checked with heat. Parts found to be worn are condemned and painted out with red paint. Finally plating on surfaces is checked and parts are sent out for replating where necessary (Southwest has plating equipment on order, and hopes to do this work itself in the near future.)

Cylinder build-up is the fourth step. Here rings are fitted to each cylinder individually and valves ground and seated. A special honing machine is available for use when needed.

Final step in the overhaul is engine build-up, and here the complete job is done by one two-man crew because, according to Beimer, it gives the men a sense of pride and accomplishment to see the engine grow to a finished product under their hands. However, he is afraid that he will soon have to turn from this practice and set up a production line to meet the growing demand for overhaul service.

While the majority of Southwest's heavy engine work is straight overhaul, the company is getting a considerable quantity of conversion work, particularly from Temco and Etco. This consists of adapting B-24 engines (R-1830-43 and R-1830-65) for DC-3s, and involves changing exhaust stacks and on some models, carburetors and other equipment.

The largest engine now being handled in the Southwest Airmotive shops is the P&W R-2000 for the DC-4. However, as soon as the R-2800-C comes into commercial use on the DC-6, Martin 202 and Convair 240, Southwest is planning to expand its facilities to handle its repair, overhaul and conversion.

New Equipment

Socony Aviation Gasoline

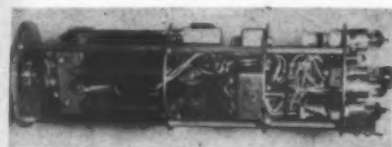
A standardized, nationwide marketing system for popular commercial grades of aviation gasoline has been announced by Socony-Vacuum Oil Co. In addition to low lead-content 91 and 100 octane fuels the company is offering a new 80 octane clear unleaded gasoline for engines requiring 73 and 80 octane anti-knock fuel.

Cockpit Enclosures for PTs

A streamlined enclosure for the major types of surplus open-cockpit training planes is being manufactured in quantity by Rawdon Bros. Aircraft Co., Wichita, Kansas. Made of clear lucite plastic, the enclosure is reported to give excellent all-around vision and to make the cockpit completely wind, water and sun proof. There are hinged doors for cockpit accessibility and vertically sliding windows for ventilation. Considerable extra baggage space is made available by installation of the enclosure.

VHF Test Transmitter

Faced with the problem of communication with planes on the ramp with a transmitter station located over the horizon eleven miles away, the radio shop of Capital Airlines-PCA



developed this one-fourth watt VHF transmitter for installation atop the company hangar at Washington National Airport. The complete unit, encased in a metal cylinder, measures four inches in diameter by fifteen inches long. It will be used for pre-takeoff radio checks.

Aircraft Ignition Tester

Electrical troubles such as leakage, breaks, and fouling in aircraft engine ignition systems can be located and measured instantly with the new Vibrotest Model 241, a 17 lb. test unit which features built-in power supply, easily read scale, and zero to 2000 megohm range at 1000 volts potential. Manufacturer's bulletin No. 209 gives additional information. Associated Research, Inc., 231 S. Green St., Chicago 7, Ill.

Seat Belt Buckle

Air Associates, Inc., Teterboro, N. J., is offering commercial and private plane owners a new seat belt buckle which can be released with one hand by means of a small button at the side of the clasp. A companion article available from Air Associates is a thermoplastic belt tip which is non-inflammable and chemically resistant to cleaning agents.

Nylon Plane Covers

Wing covers for use when planes must be tied down in the open are now available with a built-in spoiler arrangement to minimize the effect of cross winds and gusts. A stiffening in the form of an inverted V is built into the entire span of the wing cover. Sectional arrangement of the stiff webbing permits folding the entire cover into a compact bundle when not in use. Other plane covers for tail surfaces, windshields engines and propellers, all made of vinyl plastic treated nylon, are available from the manufacturer, Bogardus Brothers, New Rochelle, N. Y.

Metal Working Hammers

Hammers which feature replaceable rubber and fiber heads as well as a fixed steel head have been developed for light metal fabrication, small machine assembly and electric motor and generator repairing. Called Ace 2-1 hammers, they are manufactured by Dan Morey, Dept D-14, 814 S. Robertson Blvd., Los Angeles 35, Calif.

2-Ton Electric Hoist

The 'Midget King' line of electric hoists manufactured by Yale & Towne Mfg. Co., 4530 Tacony St., Philadelphia 24, Pa., has been expanded to include a 2-ton model equipped with a one h.p. electric motor. An alloy steel roller chain is used, and there are a number of features for safety and ease in operation. Available either with a hook for stationary use or with a permanent trolley for use on an overhead track.

Oil Change Wall Chart

The Chek-Chart Corp., 624 S. Michigan Ave., Chicago 5, Ill., has prepared aircraft wall charts listing fuel and engine oil recommendations for all currently used types of aircraft engines. The charts are intended primarily for airport distribution by oil companies.

Aircraft Starter Grease

The Texas Co., 135 E. 42nd St., New York, has developed a graphite-content starter grease for which is claimed a high resistance to softening and good low temperature properties.

Quick Connect Coupling

A quick connect hose coupling for air, oil and fuel lines, guaranteed leakproof at working pressures up to 1000 lbs., has been placed on the market by E. B. Wiggins Oil Tool Co., 3424 E. Olympic Blvd., Los Angeles 24, Calif. Gaskets can be changed, using only a screwdriver, without disassembling the coupling body. Threads are quarter inch.

Bladder-Type Gas Tanks

Collapsible fuel tanks made of nylon and synthetic rubber are now being installed in planes varying from the Boeing Stratocruiser to the Republic Seabee. These tanks, an outgrowth of self-sealing tanks used in combat planes but without the bulk of the bullet-proof tanks, can be folded into a compact package or expanded to full capacity. A variety of shapes and capacities can be fabricated for special installations. Fuel can be drawn off from separate tanks or by interconnection from one cell to the next.

Pickling Inhibitor

Oakite Pickle Control No. 3, an inhibiting agent for plating shops and others using sulphuric acid pickling solutions, has been developed by Oakite Products, Inc., 57 Thames St., New York 6, N. Y. The manufacturer claims lower maintenance costs through savings in metal and acid, plus reduction in fuming, hydrogen embrittlement, pitting and discoloration.

Carton or Parts Marker

A device for imprinting names, code designations or other information on packages or articles travelling along a conveyor has been added to the line of 'Rolacorder' marking equipment manufactured by Adolph Gottschalk, Inc., 1 Hudson St., New York. The continuous marking, self inking roll, can be installed in place of a standard roller in a roller-type conveyor.

Portable High Speed Grinder

The new Wyco Universal high speed grinder, which can be set on a bench, hung from a hook or suspended from the operator's belt, is available in three sizes for grinding, polishing, burring, sanding or filing. AC-DC motors are either one-fourth h.p., one-twelfth h.p. or one-eighteenth h.p. The grinder operates at speeds to 10,000 r.p.m., and has a flexible shaft and a ball-bearing handpiece with eighth and quarter inch collects. Manufactured by Wyszenbeek & Staff, Inc., 838 W. Hubbard St., Chicago 22, Ill.

Adjustable Spanner Wrenches

The JO Manufacturing Co., South Gate, Calif., has added to its line of tools a set of adjustable spanner wrenches. The three wrenches in each set cover diameters from three-fourths of an inch to six inches. Sets include handle, removable screw, key arm and three pin arms in graduated sizes. Material is forged steel, heat treated and cadmium plated.

20-Foot Work Stand

Airquipment Co., Burbank, Calif., has expanded its line of work and loading stands with this tubular steel "Aerostand." Hydraulically operated, it can be extended to



a height of twenty feet and is built for a static load capacity of 1500 lbs. Top working platform measures three by three and one half feet, and steps remain level regardless of the angle of the stand. Base has four twelve-inch locking swivel casters plus truck locks to hold the stand when in use.

Radii Drawing Instruments

A template device for drawing any desired radius commonly used in drafting has been developed by RapiDesign, Inc., Box 592, Glendale, Calif. A series of radii is cut around the template and the desired radius is merely placed tangent to the ends of the lines to be joined and the radius stencilled by following the curve. Available in two sizes, the Radius Guide at 75 cents and the Radius Master at \$1.50.

Operations Notes

By DAVID SHAW

We see so many remarks in the trade press about fixed base operators being poor businessmen that we hesitate to heap our small shovel-full of abuse on the hapless fellows. However, we recently devoted all of a half hour to research on the subject, and our efforts in behalf of improving the industry should not go unmentioned. It was during a departure delay from a major municipal airport—one of those big fields where they still are trying to mix private flying and commercial operations and not having much success at it. The local air services, eight or ten of them, were all lined up along one side of the field, and we went right down the line with our experiment. We were trying to prove that a lot of people with a faltering interest in taking up flying get discouraged by the fact that when they venture up to the local operator's office, waiting room or hangar, they can't distinguish employees from hangers-around and seldom find anyone who pays them the slightest attention unless they butt into a chummy conversation.

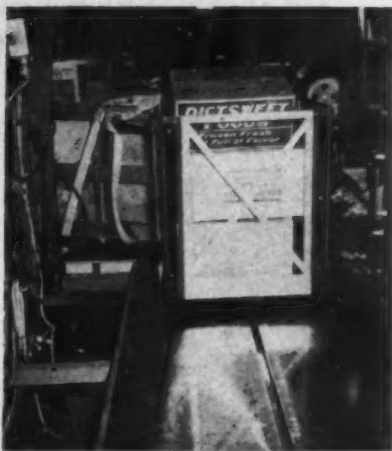
So, we assumed an expression which we hoped made us resemble a typical townsman out nosing around the airport, and we went down the line, ready to ask questions of anyone who jumped up to ask if he could be of service but not ready to break into the social groups you find at every hangar on a sunny Saturday. It was very discouraging. We would have lost our faith in the fixed base operator, if we'd had much to start with.

We stood hopefully in office doorways, looked fondly at planes on the flight line, and even prowled presumptuously through some of the shops where people were working. Could we distinguish management from customers who had been accepted into the fraternity? We could not. They all wore the same sloppy apparel and showed the same disinterest in our presence. Did anyone snap to attention and ask if there was anything he could do for us? They did not.

One bright young fellow, apparently not yet accepted into the hangar social club, interrupted his tinkering with an airplane out in front to inquire, "Lookin' for someone, bud?" We explained that we were sort of interested in having a try at this flying business and would like to talk to someone about lessons and things. After a moment's thought which suggested that this was something new in his experience, he replied that we would have to "talk to Joe about that." A bit of persistence got us a rough description of Joe and an explanation that he was either in the office or up flying. But two of three fellows in the office, none of them interested in us, could have been Joe, so, still playing the timid citizen, we assumed he was up flying and wandered on to the next place.

We could go on about this, but it wouldn't prove anything. Actually, we expected a slightly better showing than we got, and we aren't saying on the basis of our limited evidence that it happens to every potential customer. But we do feel that outfits in business to sell airplanes and related service should not display such an exclusive club atmosphere to newcomers, and should set up something resembling the sales-reception arrangement that is taken for granted in other forms of merchandising.

General Electric Co., with considerable help from the Army and Navy, recently put on a show in connection with the dedication of their new research hangar at Schenectady County Airport. It was the biggest and best collection of late-model planes that we've seen and we were quite impressed by the maneuvers of jet and conventional fighters, by the huge Martin Mars skimming



Air Cargo Conveyor— This cargo conveyor, which operates with an endless chain under the floor, has been developed by Harry P. Trushy, a blind aircraft worker of 1644 S. Grammercy Place, Los Angeles. Cargo can be pulled up to and into the plane either in dollies or by skidding with a sling hooked around the cargo and attached to the chain. Power is from a 1½ h.p. Bendix Motor. This demonstration unit is installed in a Navy PV-2.

along above the runway and pulling away like an ordinary-sized plane, and by formation passes low over the field by a Strato-cruiser, a Globemaster, a Constellation and a Skymaster. But the thing that impressed us most was the contrast in different forms of air transportation offered by guest rides, one right after another, in Bell's jet P-50, in Republic's amphibian Seabee, and in Sikorsky's commercial 4-place helicopter. Then we got in an ordinary old DC-3 and slept all the way home.

UAL Inaugurates Four-Year Mechanic Training Program

A total of 35 apprentice mechanics are scheduled to be hired each month by United Air Lines in a new four-year training program intended to keep United's maintenance organization on par with increased operations and added equipment.

Sponsored jointly by UAL and the International Association of Machinists, the program is registered under the G.I. Bill of Rights and has the sanction of the Department of Labor. Official approval is also being obtained from all states in which the company operates.

Facilities at United's Cheyenne maintenance base have been expanded to accommodate several hundred apprentices who will report there for one to six month's preparatory training before advancing to on-job training at San Francisco and Cheyenne. The complete four-year course covers 1,000 hours of preliminary shop and classroom instruction, 6,000 hours of shop or line apprentice work, 576 hours of related study and 424 hours of unassigned time to be utilized for supplementary instruction.

Offer Training Films

Training films covering a wide variety of aviation subjects are being made available for general use by the Civil Aeronautics Administration through its airway traffic control centers. The CAA's Office of Aviation Training in Washington has a list of 31 subjects now offered, on 16 and 35-mm strips, to schools, flying clubs and other groups interested in promoting aviation training.

engineers gas turbine jet propulsion

An established California company has unusual opportunities for highly qualified engineers.

CHIEF PROJECT ENGINEER \$12,000 to \$20,000

Responsible for administration, planning and control of series of gas turbine power plant projects. Qualifications include administrative, organizing and technical abilities; knowledge of production, as well as engineering phases of engine projects and experience in both; knowledge of technical and procurement procedures of government agencies and commercial companies.

PROJECT ENGINEER \$7,500 to \$10,000

Responsible for satisfactory administration of the technical functioning and planning of all design, testing and manufacturing liaison engineering on his assigned engine project. Must have experience in above duties, knowledge of engine development, research and testing techniques, and knowledge of fabricating and tooling techniques.

Please state fully education, experience and references

reply to box no. 500

Operations Personnel



Schaefer

Albright

Shirley

Lewis G. Schaefer, formerly of Charleston, has been transferred by EAL to manage its station at Albany, Ga. He replaced Frank Albright who has been named station manager at Tallahassee.

Monte H. Snedeker, former CAA official, has been appointed by Chicago & Southern as assistant operations manager. He will supervise maintenance, planning, engineering and communications departments.

William A. Gibson and Paul A. Miller, both Pacific war veterans, are new first officers on PCA Capitaliners flying out of Milwaukee.

Other veteran pilots who have recently joined PCA are Kenneth R. Schaper, Winston O. Farmer, Robert E. S. Terrill, Andrew A. Black, Richard Oakley, Edwin L. Walker, William J. Denton, Jr., Robert Lee Rupley, Jr., Allen C. Ebell and Thomas E. Dyer.

H. G. Hollenback, who headed Naval Air Transport Service operations both in Alaska and in the Philippines, has returned to Western Air Lines on the Denver-Los Angeles run.

Wendell F. Peterson former NATS squadron commander, has rejoined TWA as a captain flying out of San Francisco.

Charles H. Bollinger, Texarkana station manager for Mid-Continent, has been transferred to Kansas City as a technical instructor. Andrew A. Ellis will succeed Bollinger at Texarkana.

F. H. Shirley was selected by PCA to be manager at Willow Run airport, where the company recently started commercial operations.

Clifford G. Noeller, Paul K. Harris and Merrill D. Holmes, have been named flight instructors for PCA. The trio are former army pilots and will be based at National Airport, Washington.

Edward A. Clark has been named general manager for PCA in the Sault Ste. Marie, Mich., district. He has been serving as assistant to Robert M. Averill, regional v. p., at Chicago.

Lt. Col. Robert L. Sicard has been assigned the office of superintendent of maintenance for Pioneer Airlines at Houston. He formerly served in a similar capacity with TACA at Miami.

Jack Curtis, director of safety for United Air Lines, has been elected to the board of directors of the National fire protective association.

Capt. Robert P. Harris has been appointed chief pilot by Mid-Continent Airlines. Harris has logged 9500 hours since 1930 and has been with Mid-Continent for nine years.

W. E. Curtis, former C&S station manager at Detroit has been named assistant superintendent of stations for the system. James E. Wall leaves similar post at Ft. Wayne for the Detroit assignment. Dan Baker fills the post vacated by Wall. John Willey, former Paducah station manager has moved to Toledo to head C&S station formerly managed by W. E. Cline, resigned. A. J. Mehrie, former senior agent at New Orleans, succeeds Willey at Paducah.

W. A. Fuhrman has been appointed superintendent of communications for TWA's midwest region, succeeding F. W. Culbertson who is now with the system communications staff.

Capt. G. F. Maxwell, chief pilot for the Pacific Alaska Division of PAA, has been assigned the additional duty of acting operations manager at San Francisco.

Marvin Horstman is now superintendent of flying for the central region of Transcontinental and Western Air. He succeeds Roger Don Rae who requested return to active flying status.

H. A. Crosby, recently a Lieutenant Colonel attached to the Fourth Armored Division, has joined TWA as assistant to John B. Thurston, director of industrial engineering.

Richard J. Kenlan, who joined PCA as an apprentice mechanic in 1938 and has lately been sheet metal foreman, has been named supervisor of airplane overhaul for PCA.

ONE WAY TO RAISE A LOAD

Man (A) starts fan (B) causing midget (C) to sneeze and blow mite out of trumpet, upsetting vase (D). Spilled buckshot is eaten by fish (E) causing him to sink and turn on camera (F) which projects image of lady elephant on screen. Polite Jumbo (G), seeing lady, rises to lift load.

Why Improvise?

**USE JACKS THAT
ARE GIANT KILLERS!**

unit and operate its dual piston pump. One piston raises light loads quickly—the other, bigger loads more slowly. Both pistons can be operated simultaneously for very heavy loads.

Spring-loaded casters retract at 1000 lbs. and let tripod rest squarely on the ground. Aerojack will lift from a minimum of 74½ inches to 123 inches. With adapter cap it will take loads safely to 139 inches. Write for full details and specifications to Dept. C-4, Airquipment Company.

Item S-83900
with S-86751 adapter

Aerojacks make light work of heavy lifting. One man can roll the rugged lightweight tube steel

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AEROTOWS SPECIAL AEROTOOLS AERORAMPS**

Airquipment on the ground keeps planes in the air

Distributor Franchises Available

Product Literature & Booklets

The Gyroscope Through the Ages, a readable booklet giving early history and current scientific applications of the gyroscope, has been published by Sperry Gyroscope Co., Inc., Great Neck, N. Y.

Scheduled and non-scheduled cargo carriers who have not seen it already will be interested in Fairchild Aircraft's new descriptive brochure on the "Packet". It is the best set of facts and illustrations thus far seen on this strictly-cargo plane.

A flow rate measurement device, named the Rotameter, is described in Catalog Section 31-E, prepared by the Fischer & Porter Co., Dept. 4J, Hatboro, Pa. Several types, including a Junior model small enough to be held in the hand or mounted in a multiple panel, are illustrated.

An internally loaded bucket elevator for small parts and fragile articles has been produced by Link-Belt Co., 307 N. Michigan Ave., Chicago 1, Ill. Folder No. 1983 is available to persons desiring additional description.

Edo Aircraft Corp., College Point, L. I., N. Y., has prepared an 18 page illustrated booklet titled "Air Harbors," intended as a planning guide for communities, recreation spots, etc., with water areas adaptable to seaplane and amphibian operations.

Aviquest Mfg. Corp., 25 Beaver St., New York 4, is preparing a series of new catalogs listing available AN standard parts. A check list of these catalogs and the part numbers covered by each is available to persons wishing to request them.

Revolving "Roto-Hangars," offering space saving storage for six planes in separate compartments, are described in a manufacturers brochure. Roto-hangar Co., Central Airport, 13610 S. Central Ave., Los Angeles 2, Calif.

An airport "shop mule" tractor, model J233, is described in bulletin HA500. The rear-drive tractor has an overall length of 102 inches, width of 66 inches, and turning radius of 119 inches. Manufactured by W. F. Hebard & Co., 336 W. 37th St., Chicago 9, Ill.

A two-side data sheet on the Barnes Midget Size Solenoid has been issued by John S. Barnes Corp., Rockford, Ill.

The Civic and Commerce Association of South St. Paul, Minn. has prepared a four page folder describing the features and facilities of its municipal airport, Fleming Field.

The American Road Builders Association has combined two informational papers into their technical bulletin No. 102, pertaining to airports. The first portion of the booklet is the text of a report delivered by William E. Cullinan, director of the New York Department of Commerce Bureau of Aviation. It deals with the fundamental considerations in the designing of airports. The second paper is by Burton J. Bell of the technical information branch of the U. S. Engineers. His subject covers methods and equipment used in building rigid and flexible airfield pavements.

Two new bulletins have been made available by the Safety Bureau of the Civil Aeronautics Board, Washington, D. C. "Service Pilots versus Light Planes," 169-46, covers the transition required by those who have been flying military types and wish to change to civilian planes. The second bulletin, "Carelessness, The Principal Factor in Ground Fire Accidents," 168-46, enumerates causes and suggests safeguards pertaining to fire hazards. The booklets are available through the Supt. of Documents, G. P. O., at 5c each.

Headquarters, Army Air Forces, Washington, D. C., has published a booklet, "Minute-men of the Air," dealing with the value of air power for national defense. The text points out America's vulnerability and emphasizes the need for well trained flying reserve personnel and up-to-date air equipment and ground facilities. Every state and community in the country is reminded to encourage private flying, the Civil Air Patrol and air reserve activities, as well as the regular Air Force to maintain supremacy in the air.

Classified Advertising

AIRLINES REPRESENTATIVE — College graduate, age 39, with approximately seventeen year practical experience—including association with major national and international air carrier—seeks responsible traffic sales or administrative connection progressive carrier. Location and salary open. Interview invited. Box 505, American Aviation, American Building, Washington 4, D. C.

WANTED—Airline Traffic and Sales Manager with qualifications to become Vice President. Must have outstanding sales record—10 years airline sales experience—35 to 45 years of age. Salary open.

WANTED a pilot with some airline pilot experience to represent a well-established employee-representing organization. This is not a flying position. Executive work only with some travel. Employer-employee relations handling ability necessary. Veteran preferred. Box 449, American Aviation, American Building, Washington 4, D. C.

WANTED—Director of Personnel for Airline, qualified and with five years experience in all phases of personnel administration with commercial organization. Military experience not sufficient. Age 35 to 45. Salary open. Box 504, American Aviation, American Building, Washington 4, D. C.

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